

FIG. 2 is a block diagram of a system 100. The system 100 includes a GPS 112, a digital block 102, an analog block 104, a duplexer 106, a power amplifier 108, a patch antenna 114, and a power supply 110. The GPS 112 is connected to the digital block 102. The digital block 102 is connected to the analog block 104. The analog block 104 is connected to the duplexer 106. The duplexer 106 is connected to the patch antenna 114. The power amplifier 108 is connected to the duplexer 106. The power supply 110 is connected to the power amplifier 108. The system 100 is also connected to AC power, alarms, and backhaul.

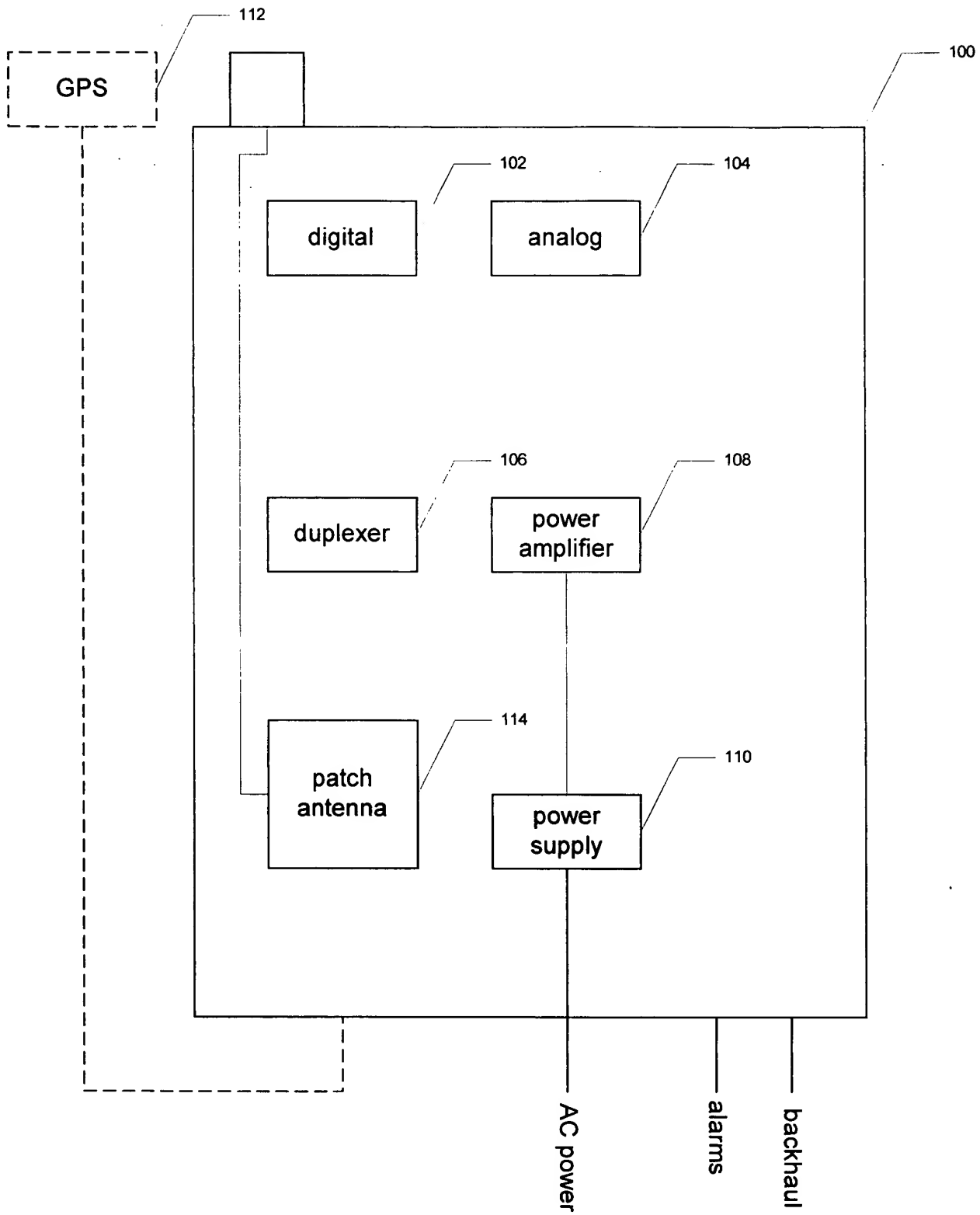


FIG. 2

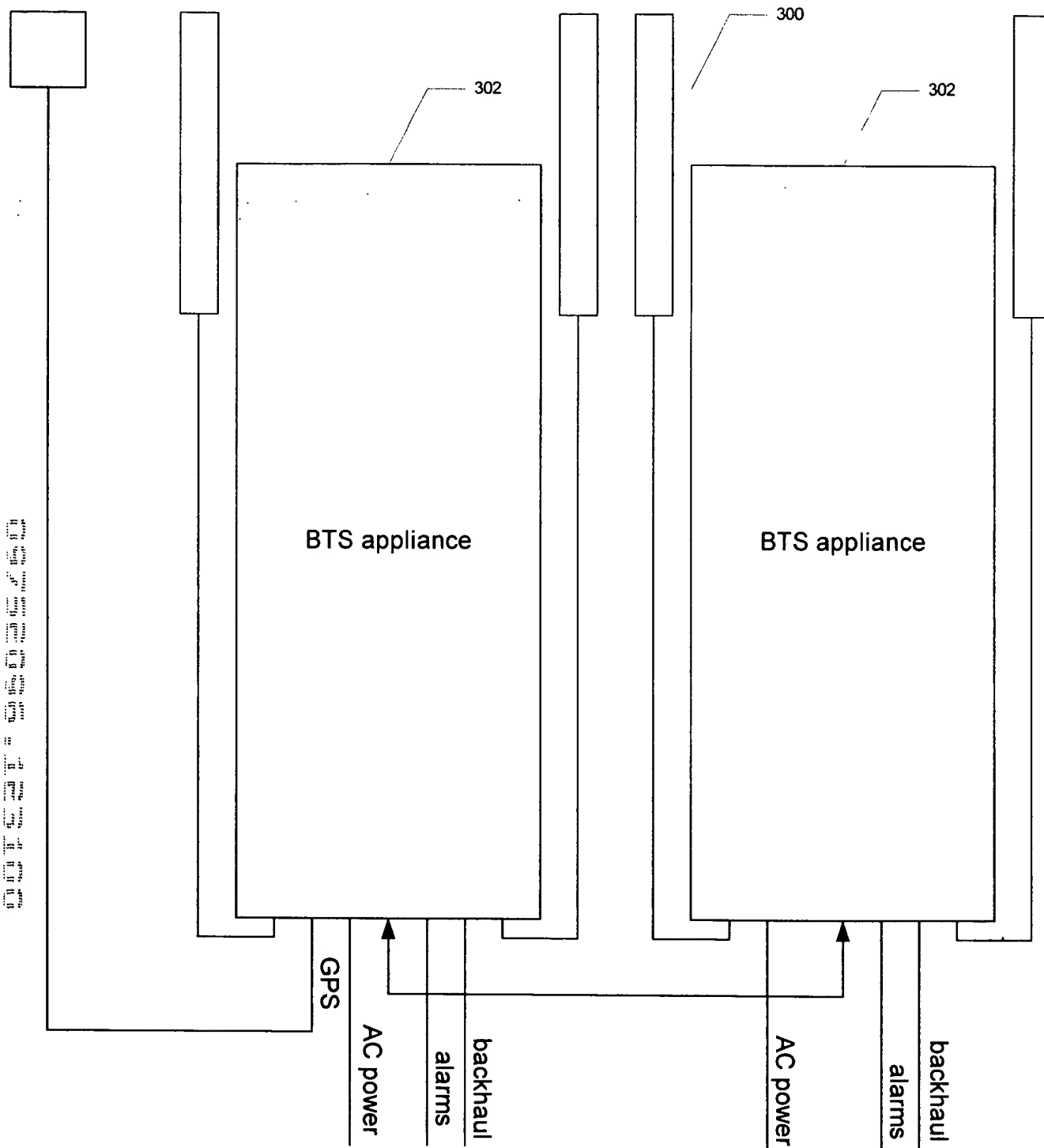
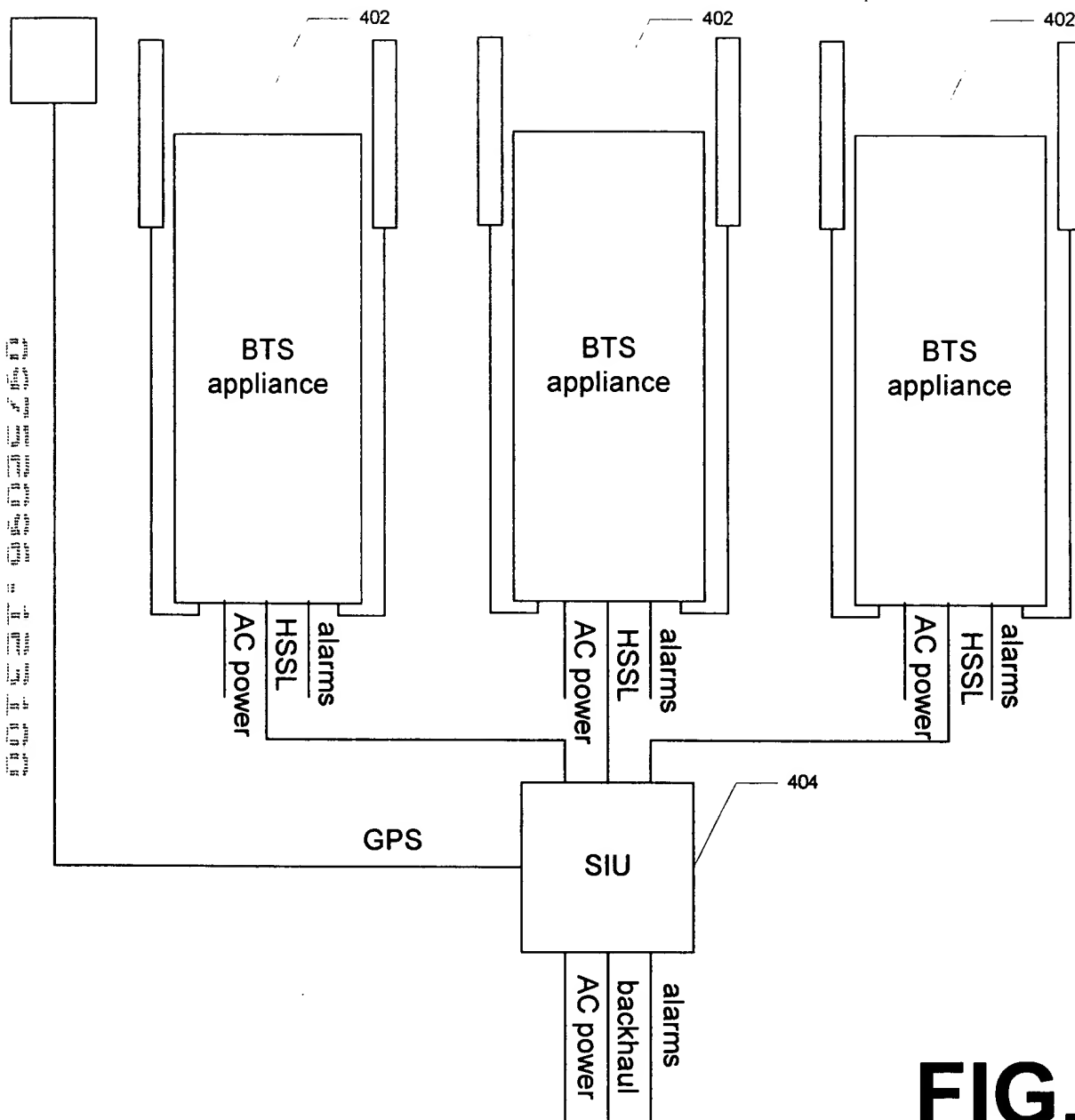


FIG. 3



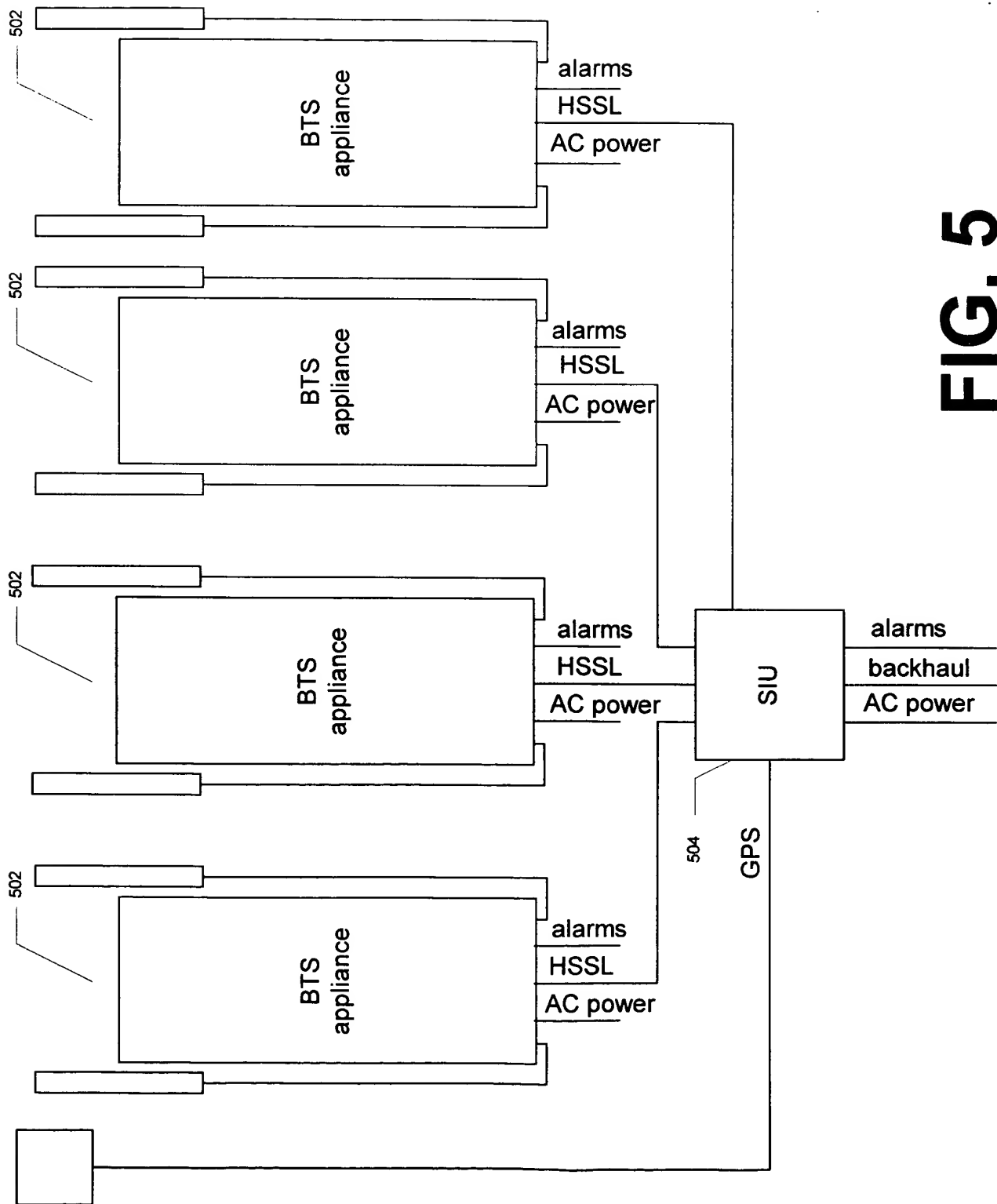


FIG. 5

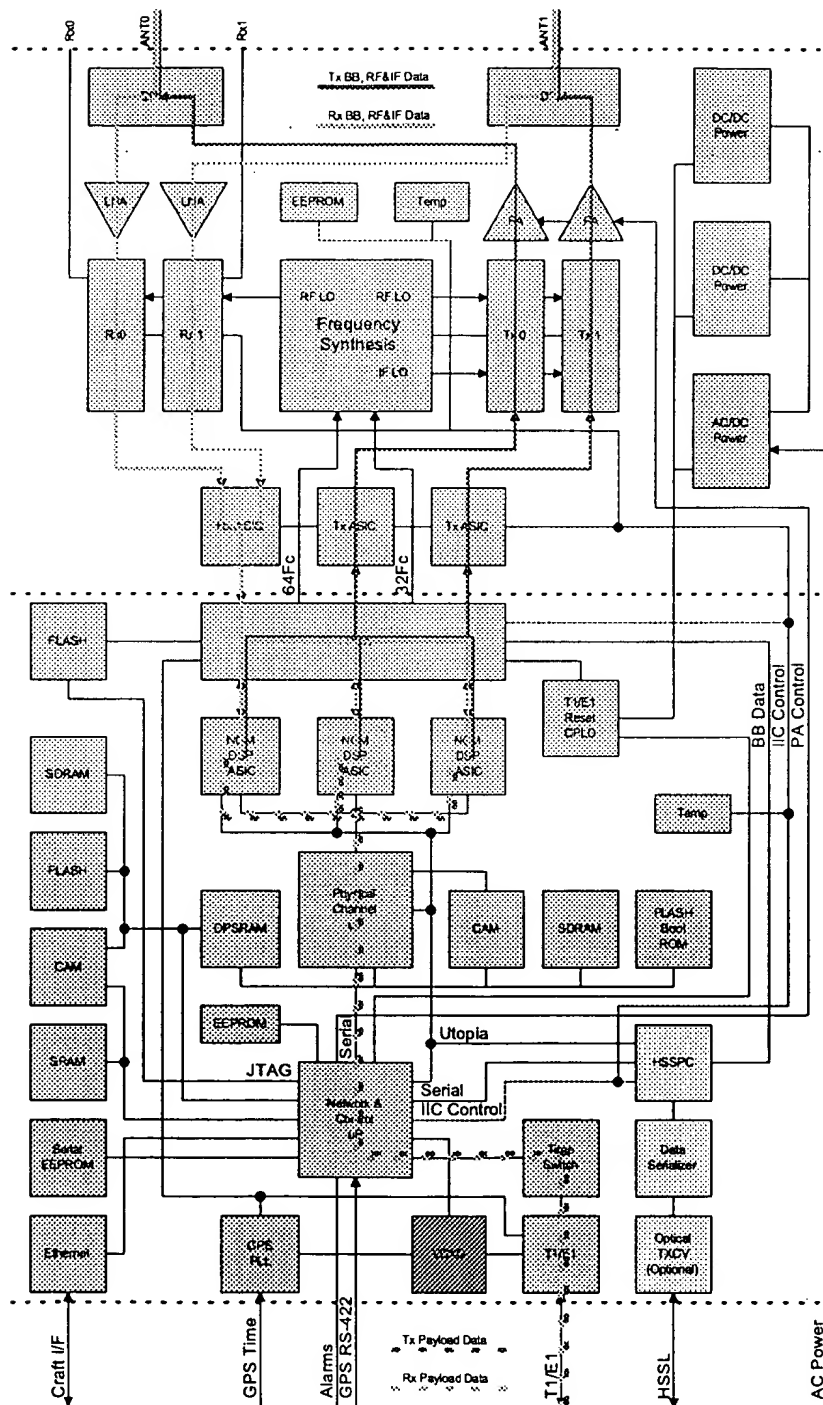


FIG. 7

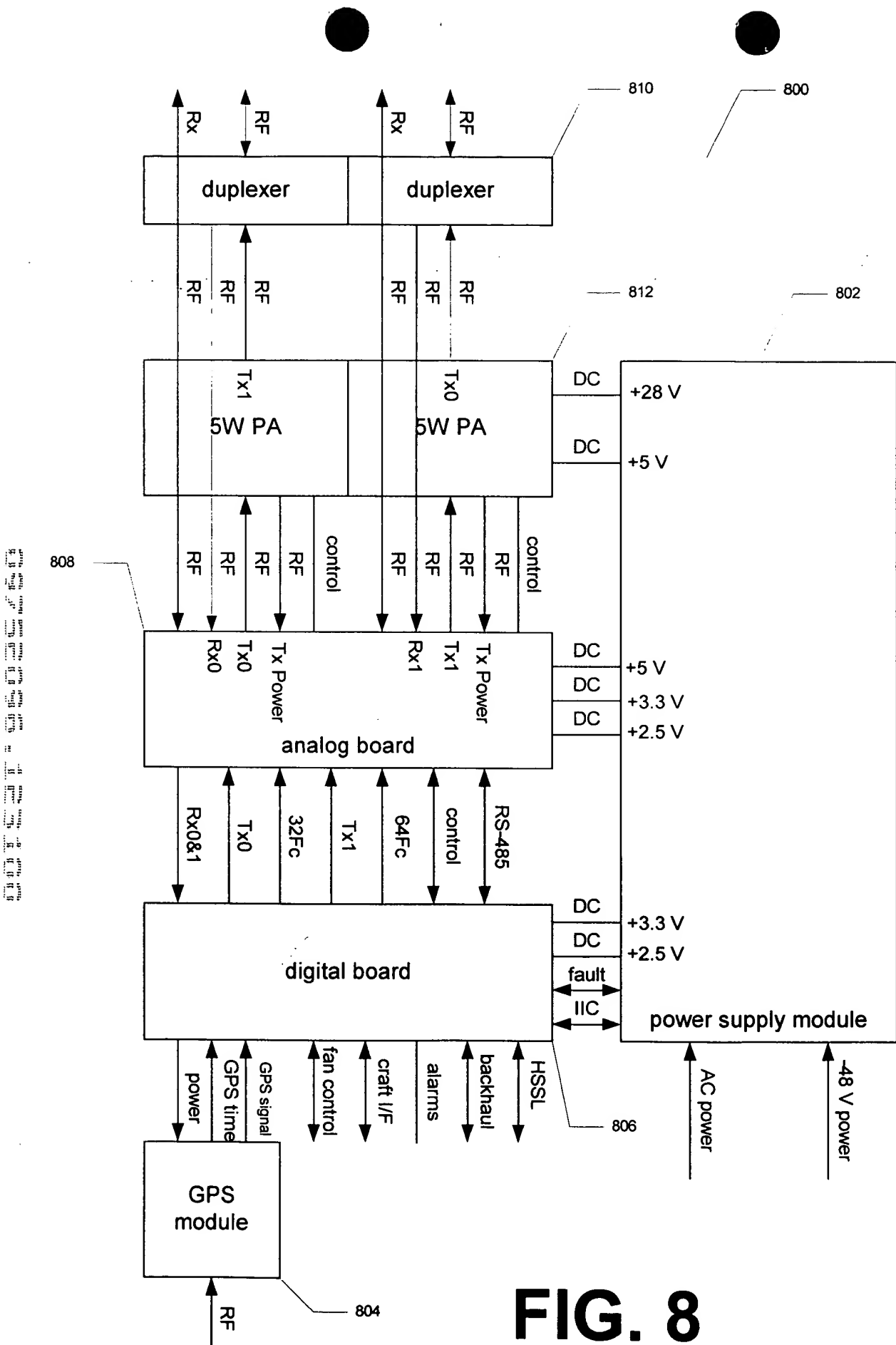


FIG. 8

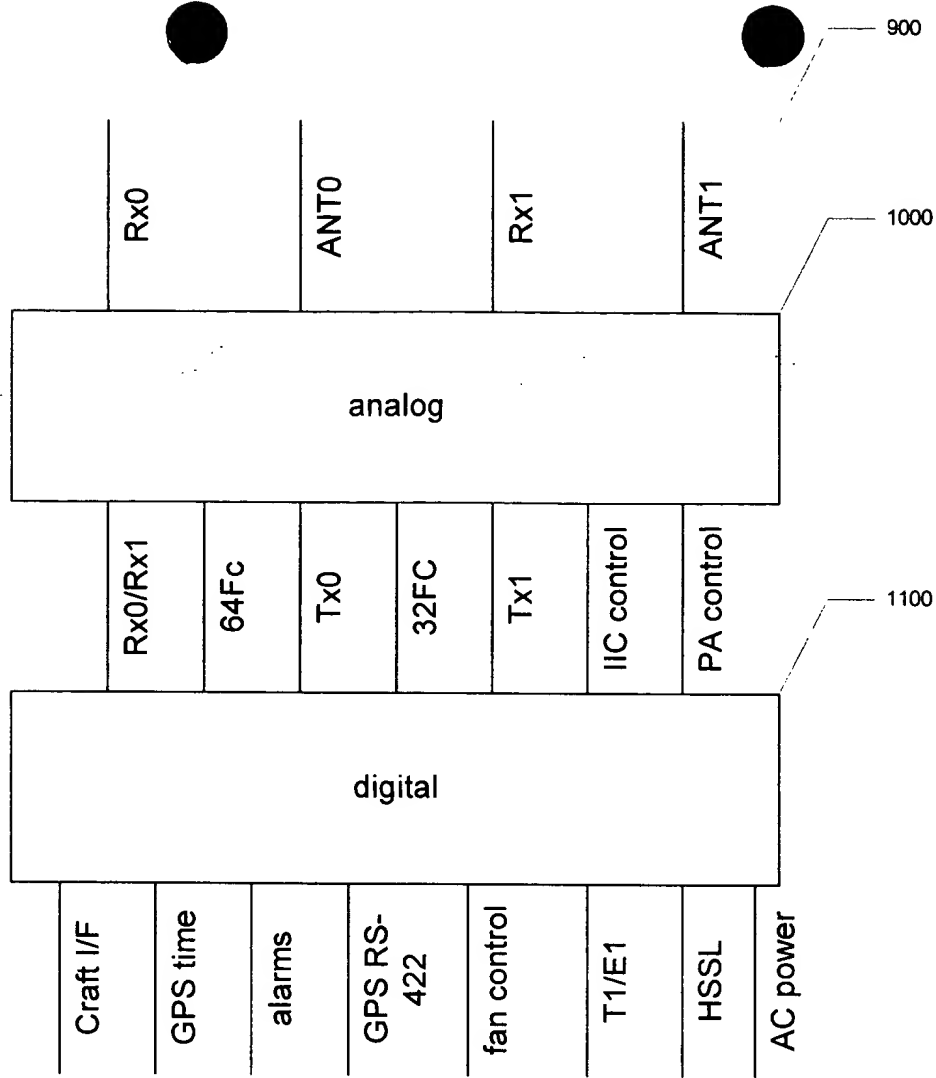


FIG. 9

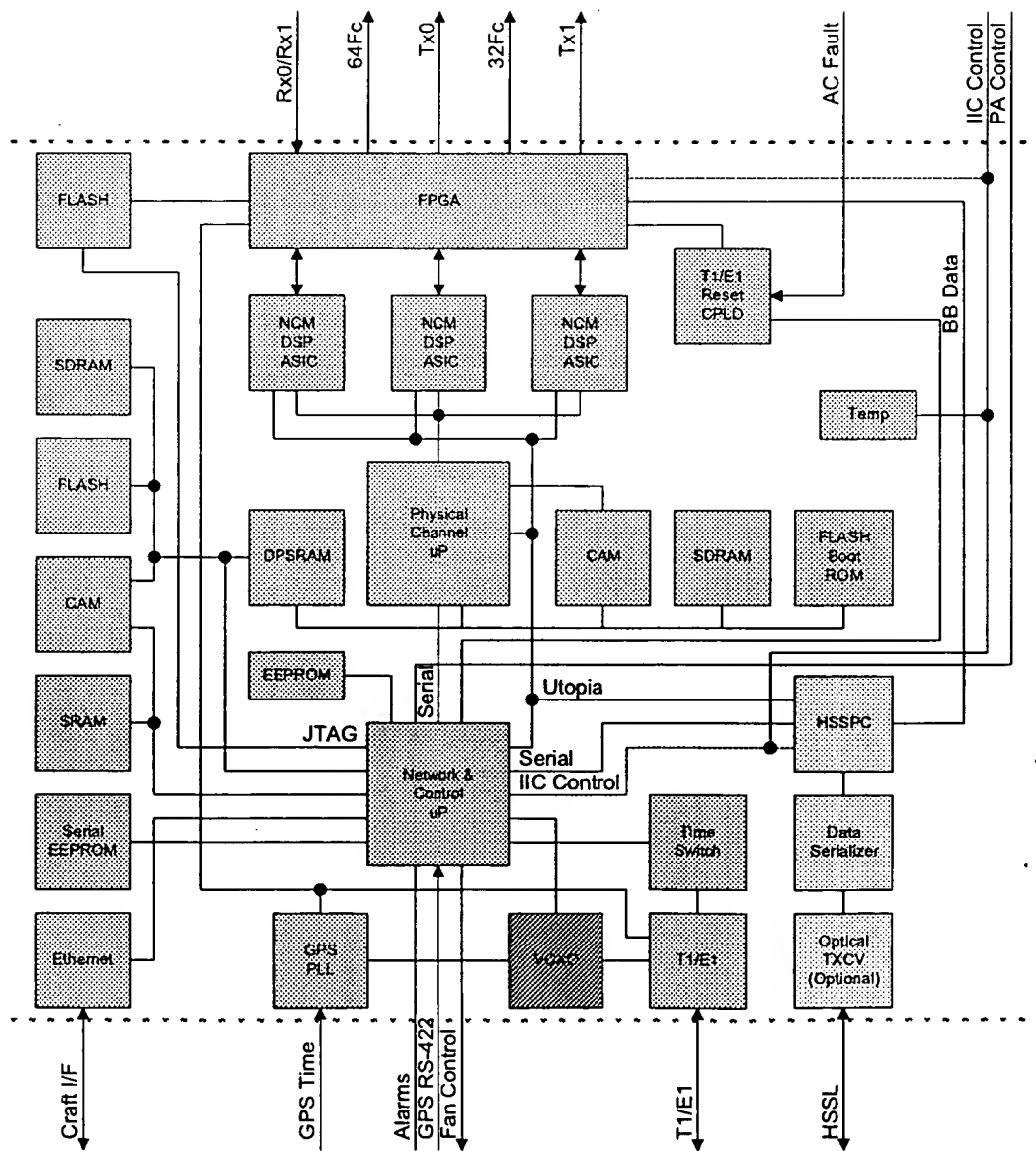


FIG. 10

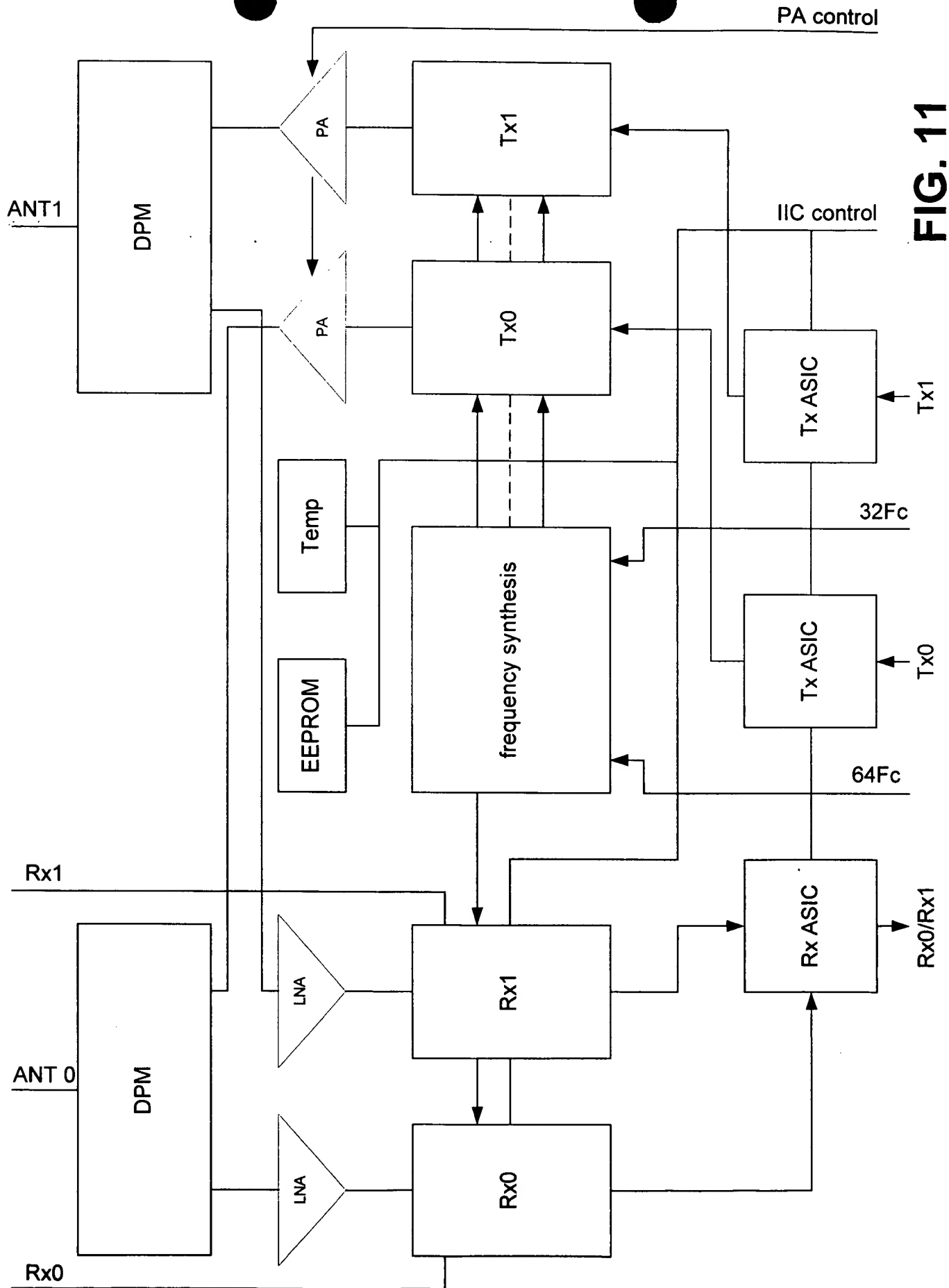


FIG. 11

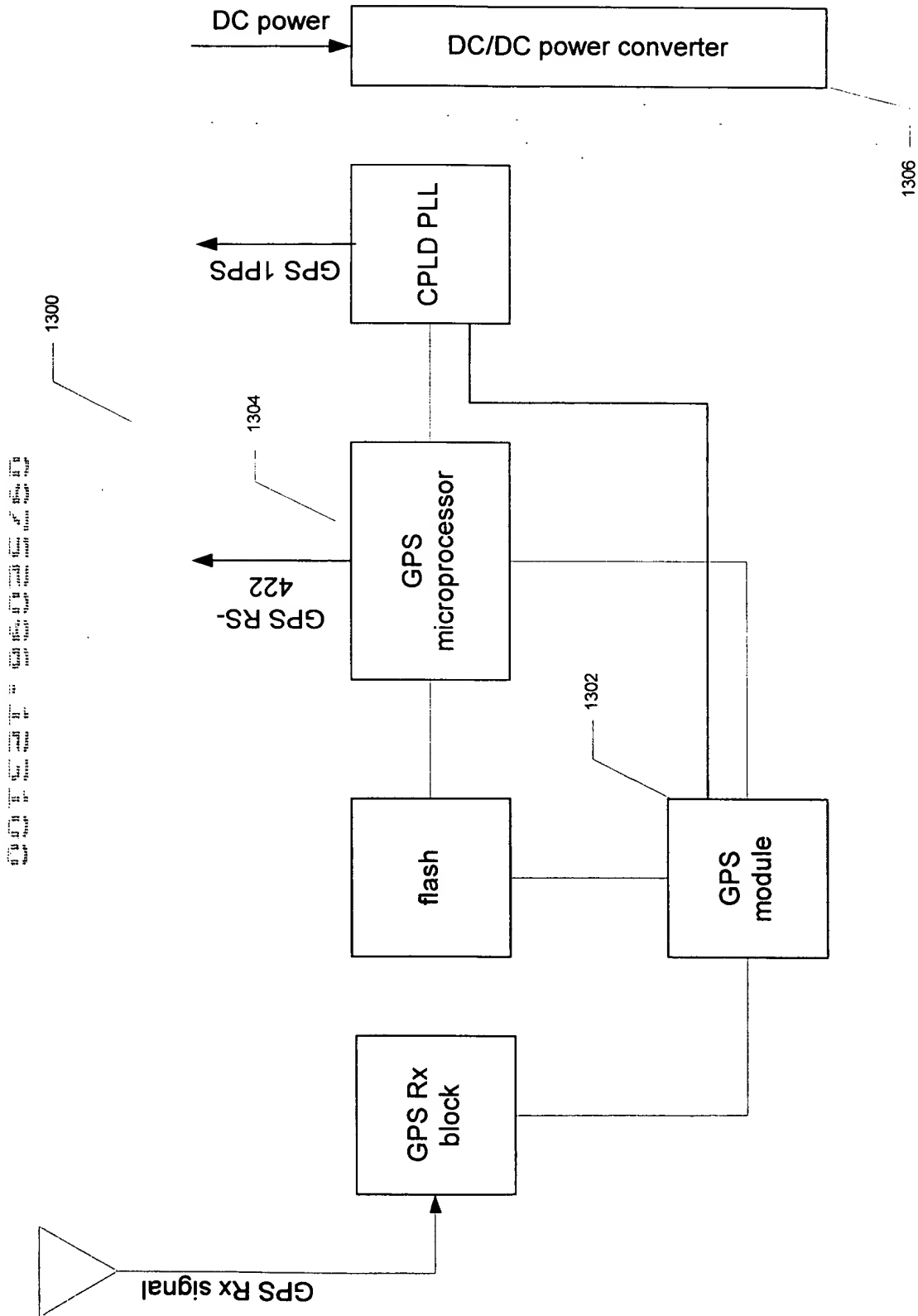


FIG. 13

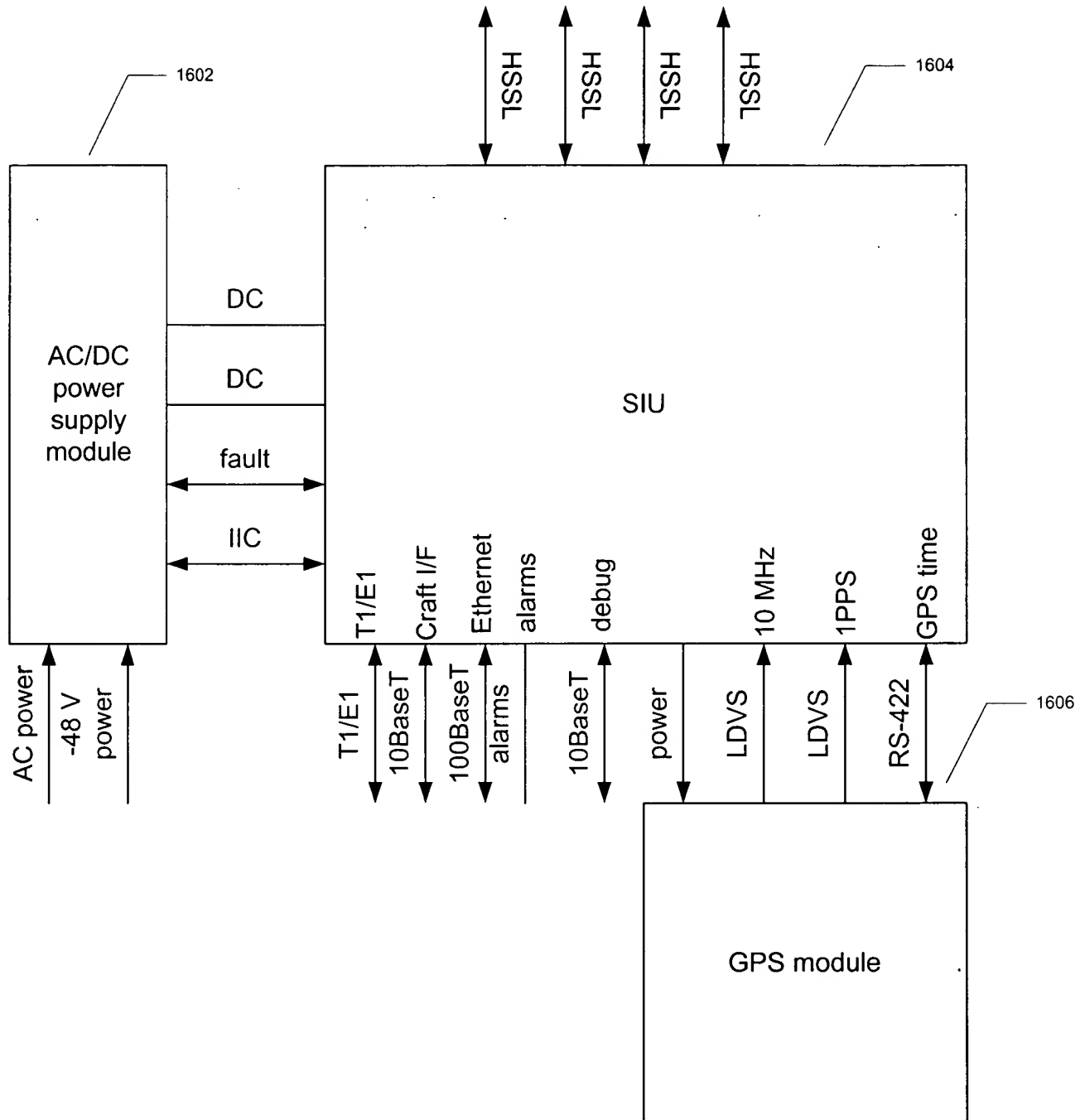


FIG. 16

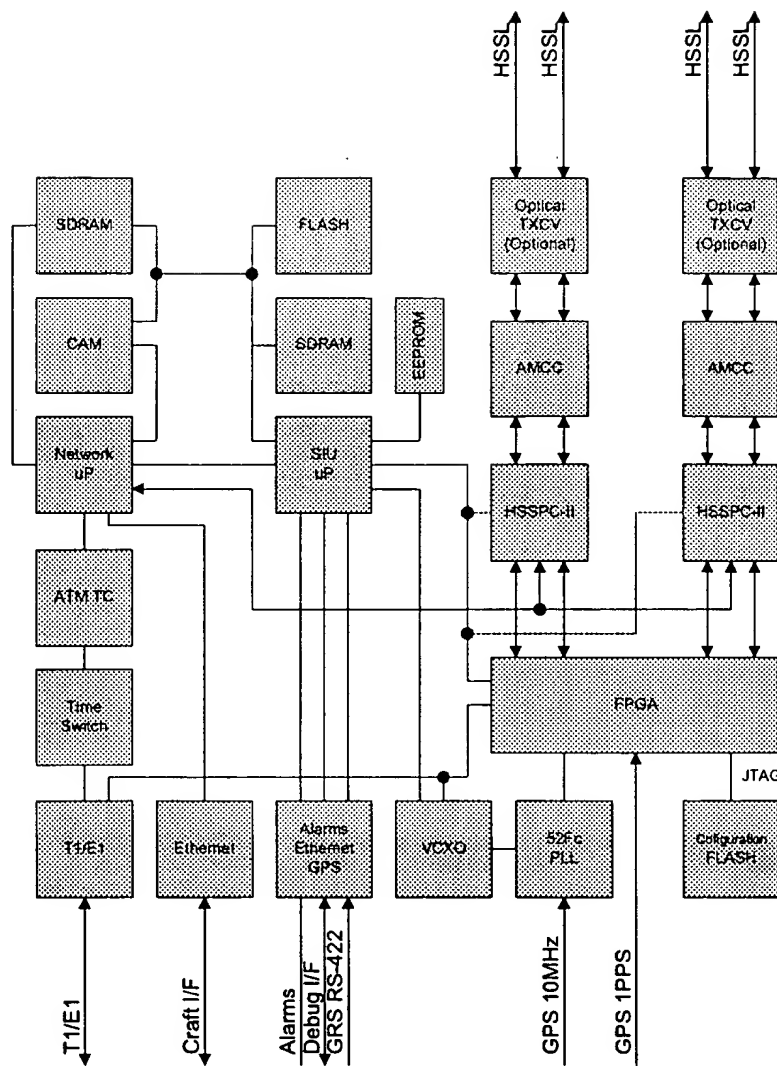


FIG. 17

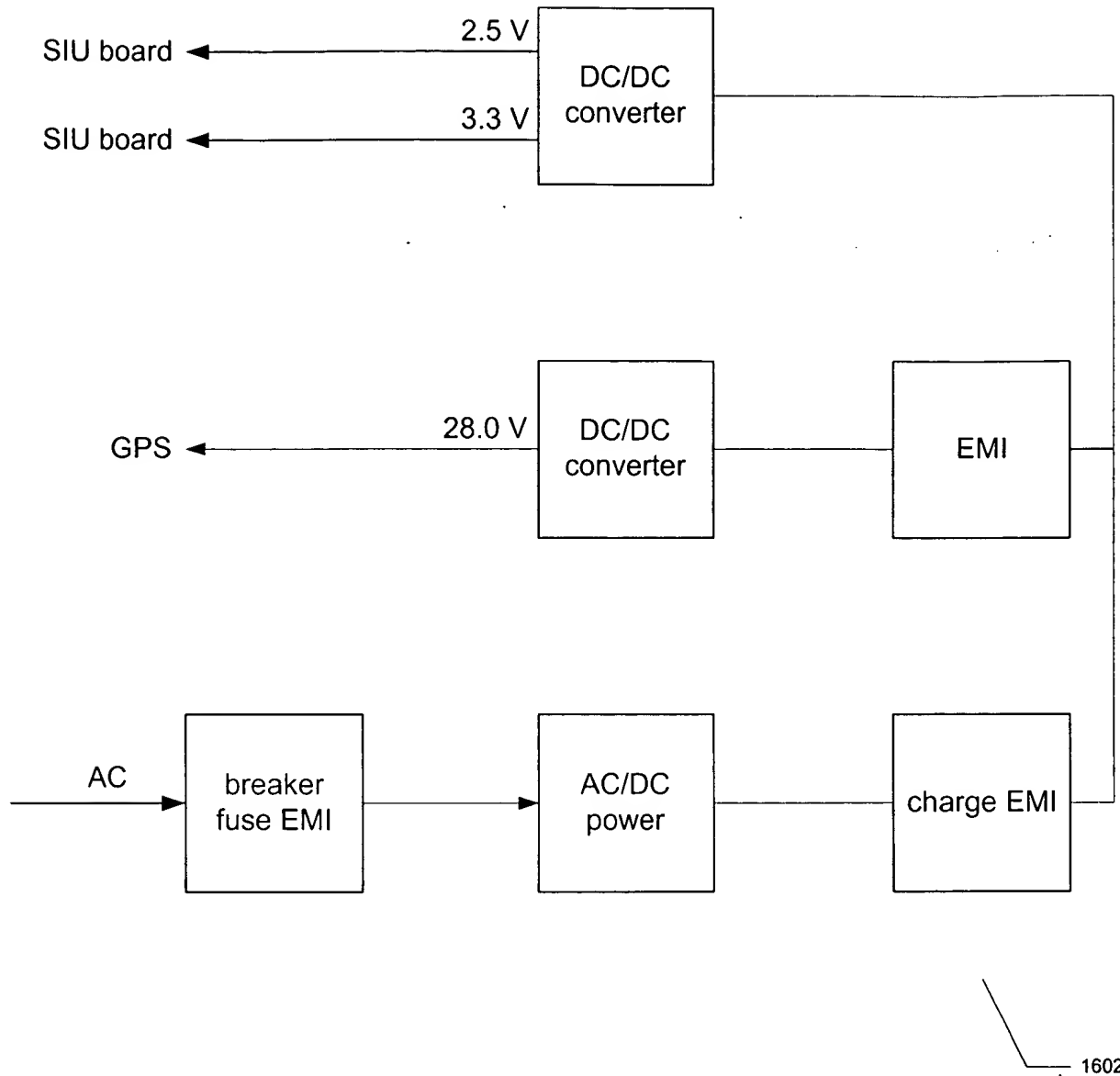


FIG. 18

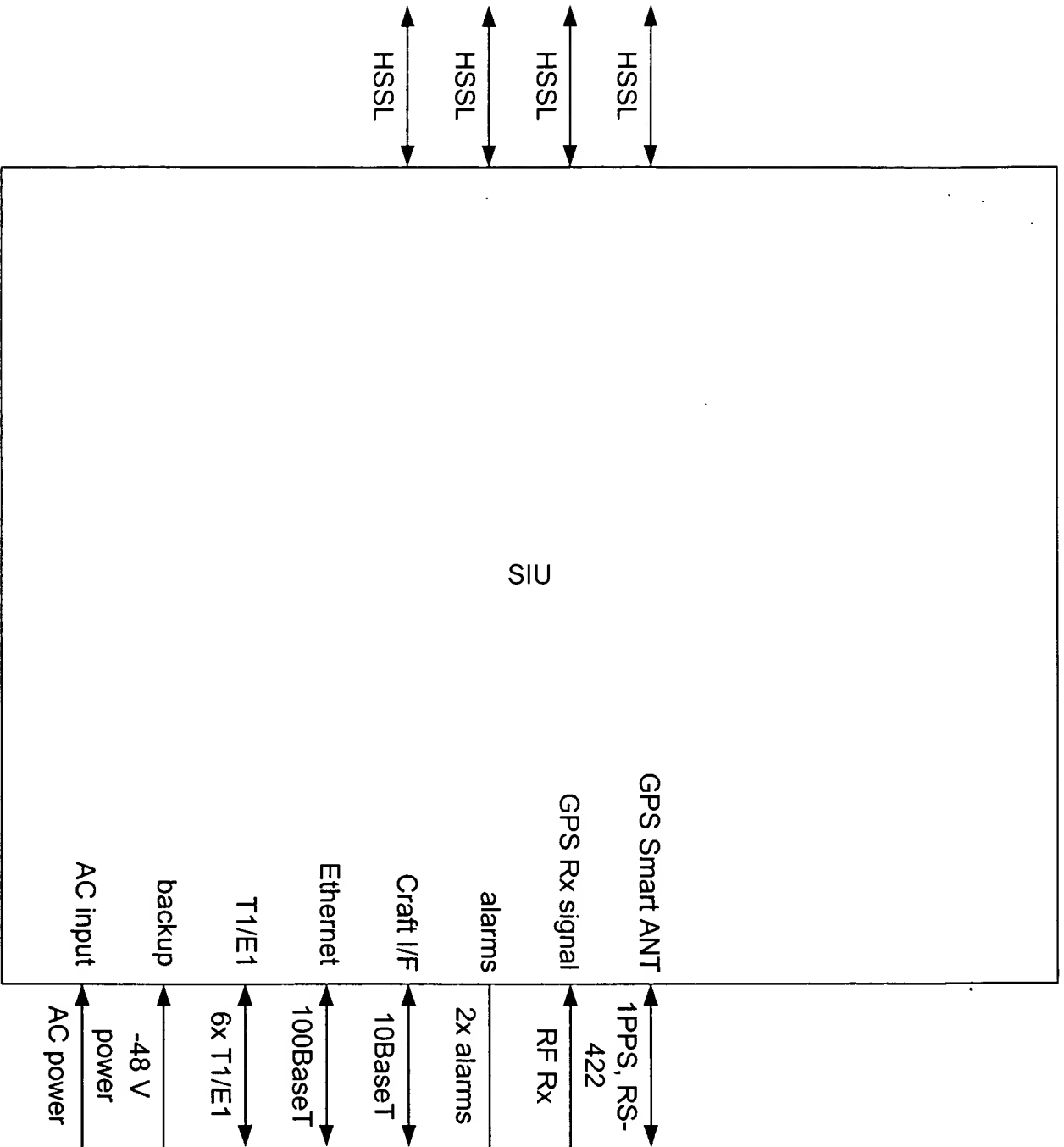


FIG. 19

FIG. 21 is a block diagram of a system architecture. The diagram is divided into three main sections: a top section for RF and baseband processing, a middle section for system control and data processing, and a bottom section for external interfaces and power management.

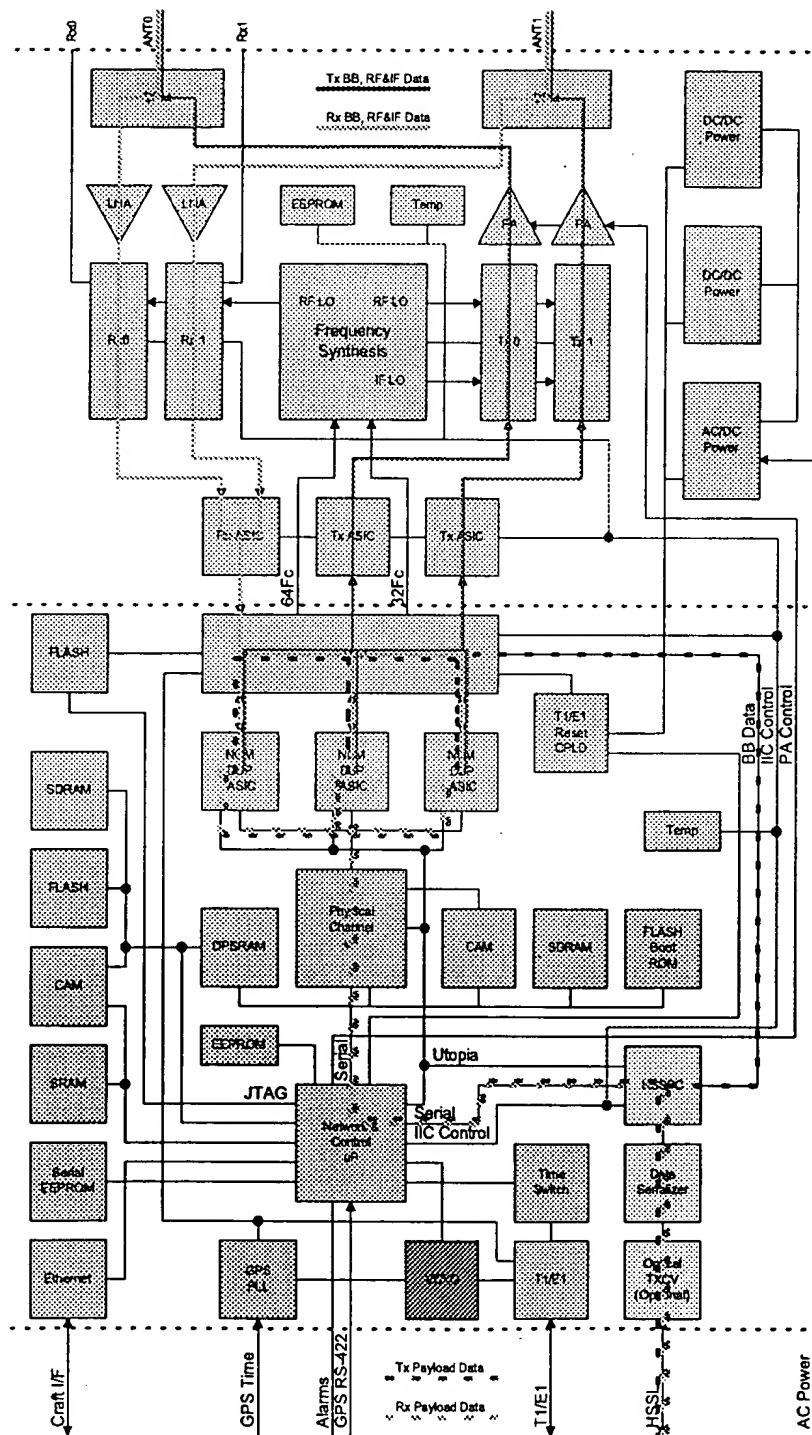


FIG. 21

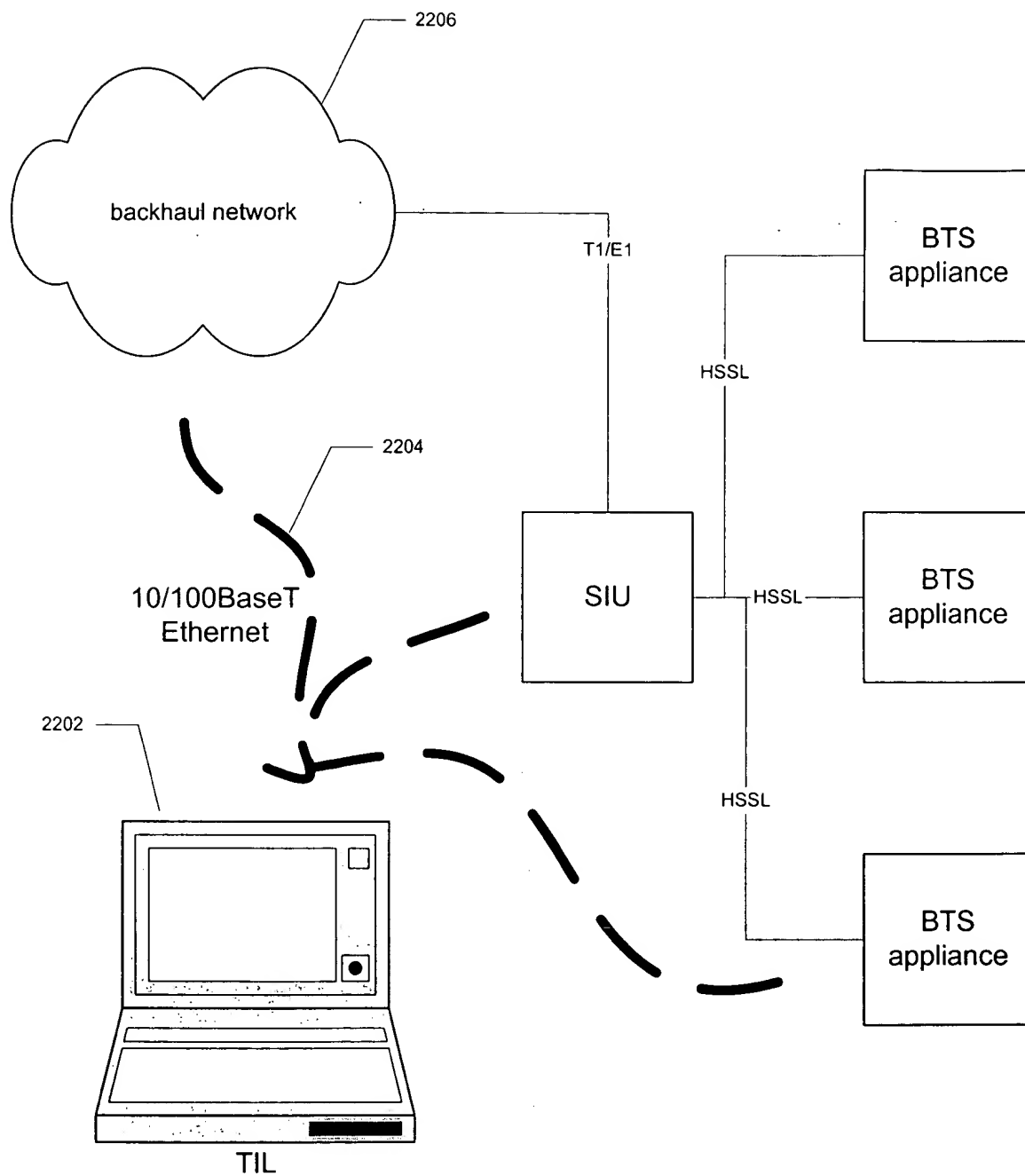


FIG. 22

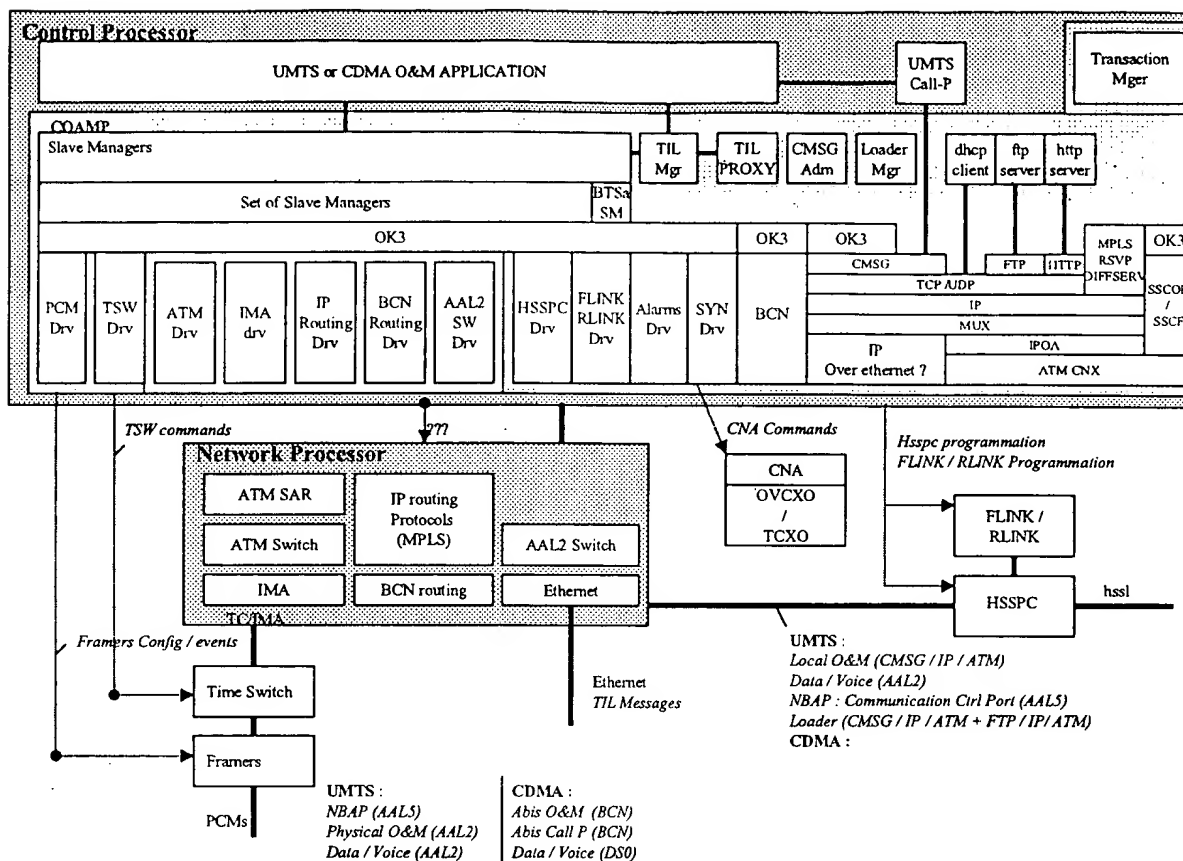


FIG. 23

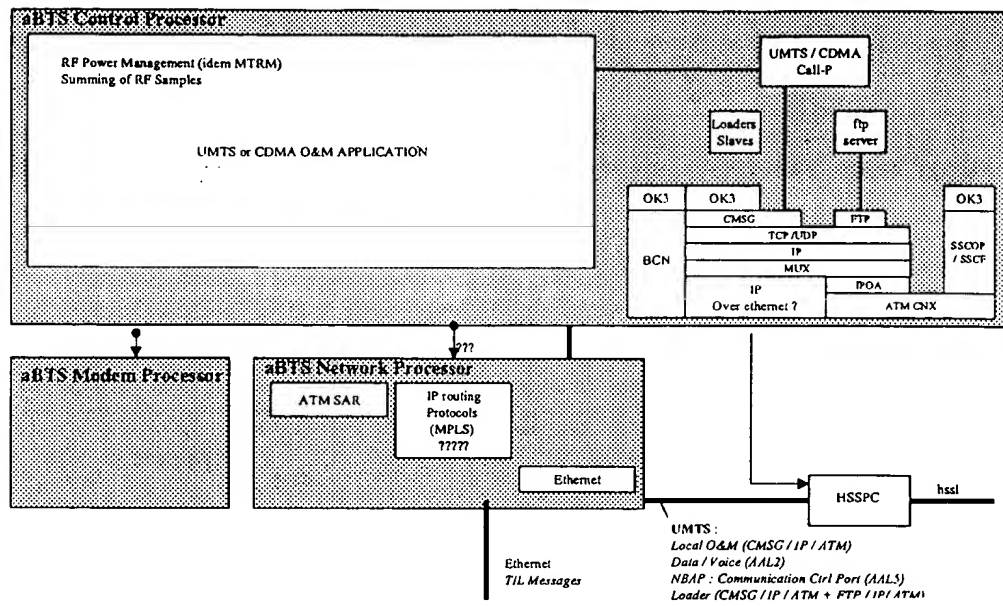


FIG. 24

2500

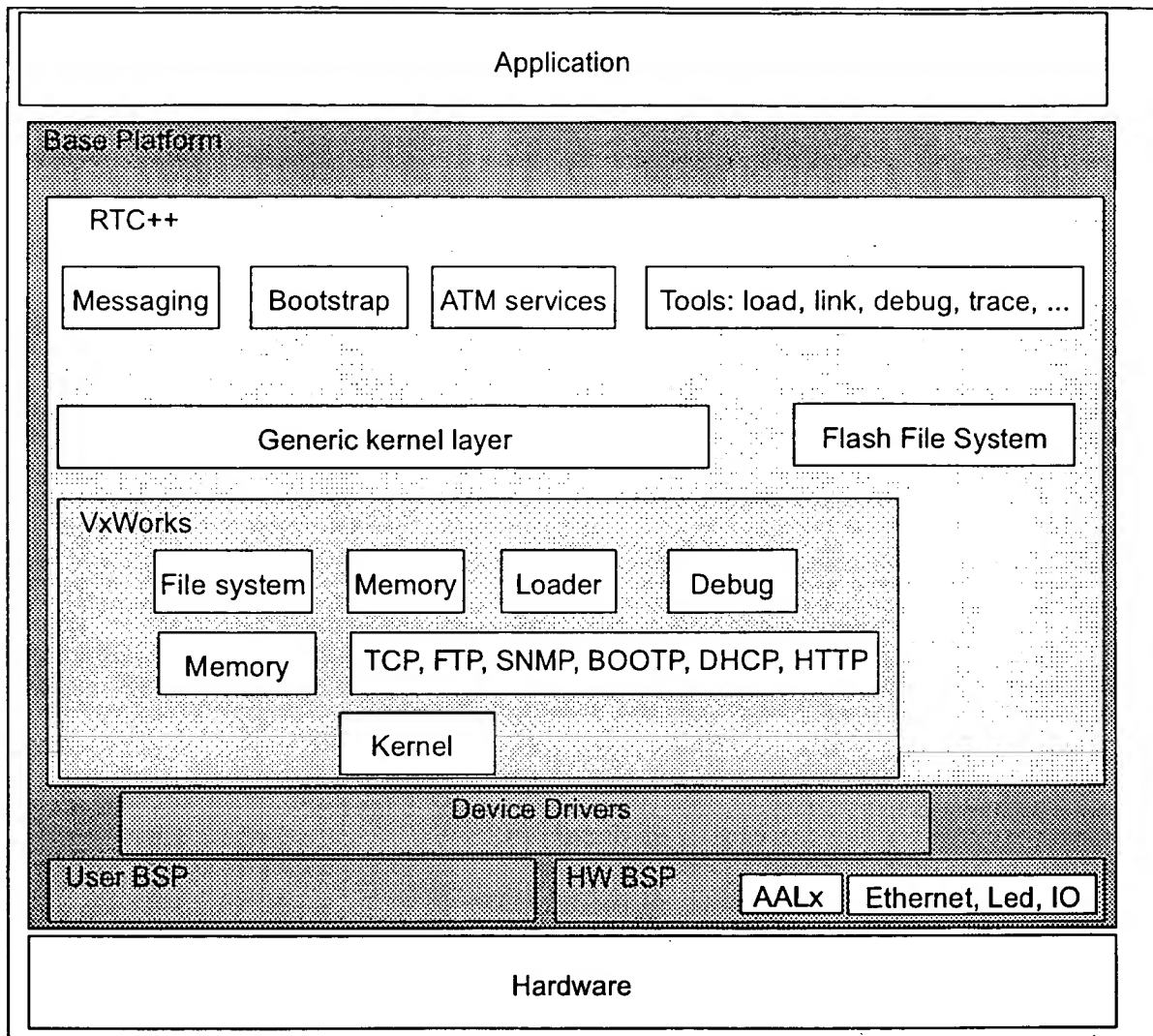


FIG. 25

2600

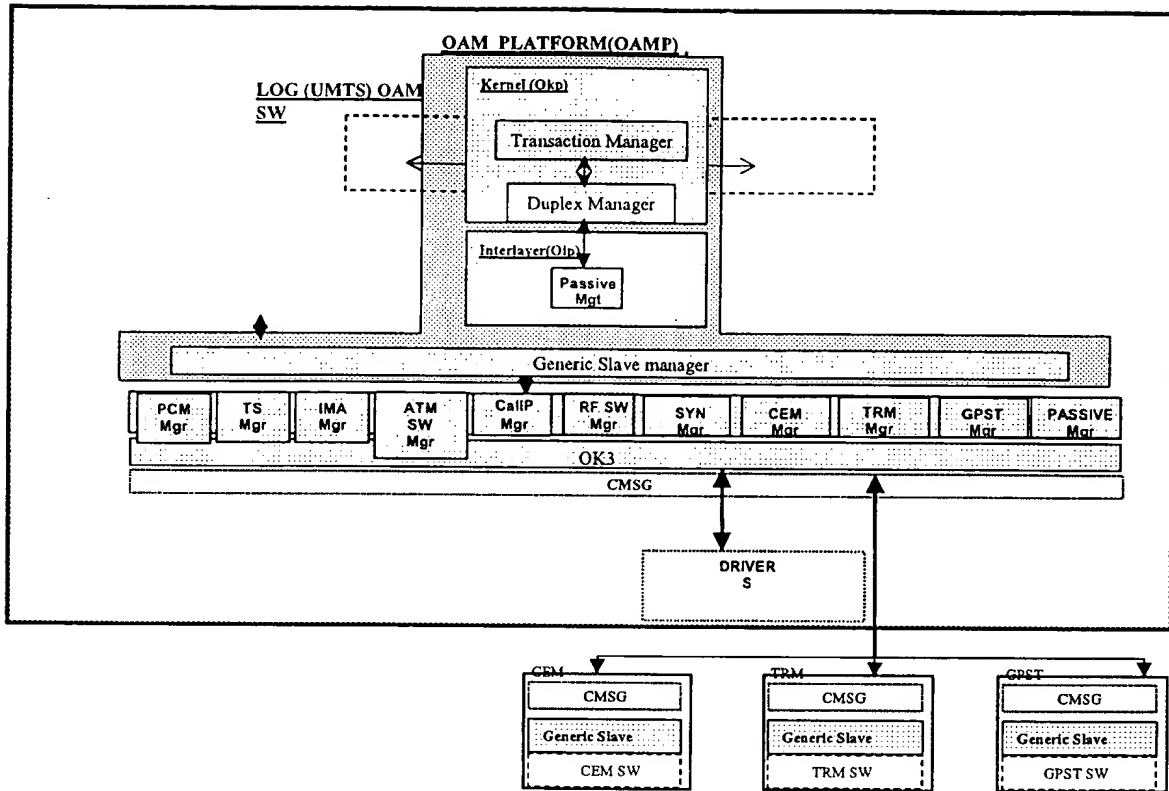


FIG. 26

2700

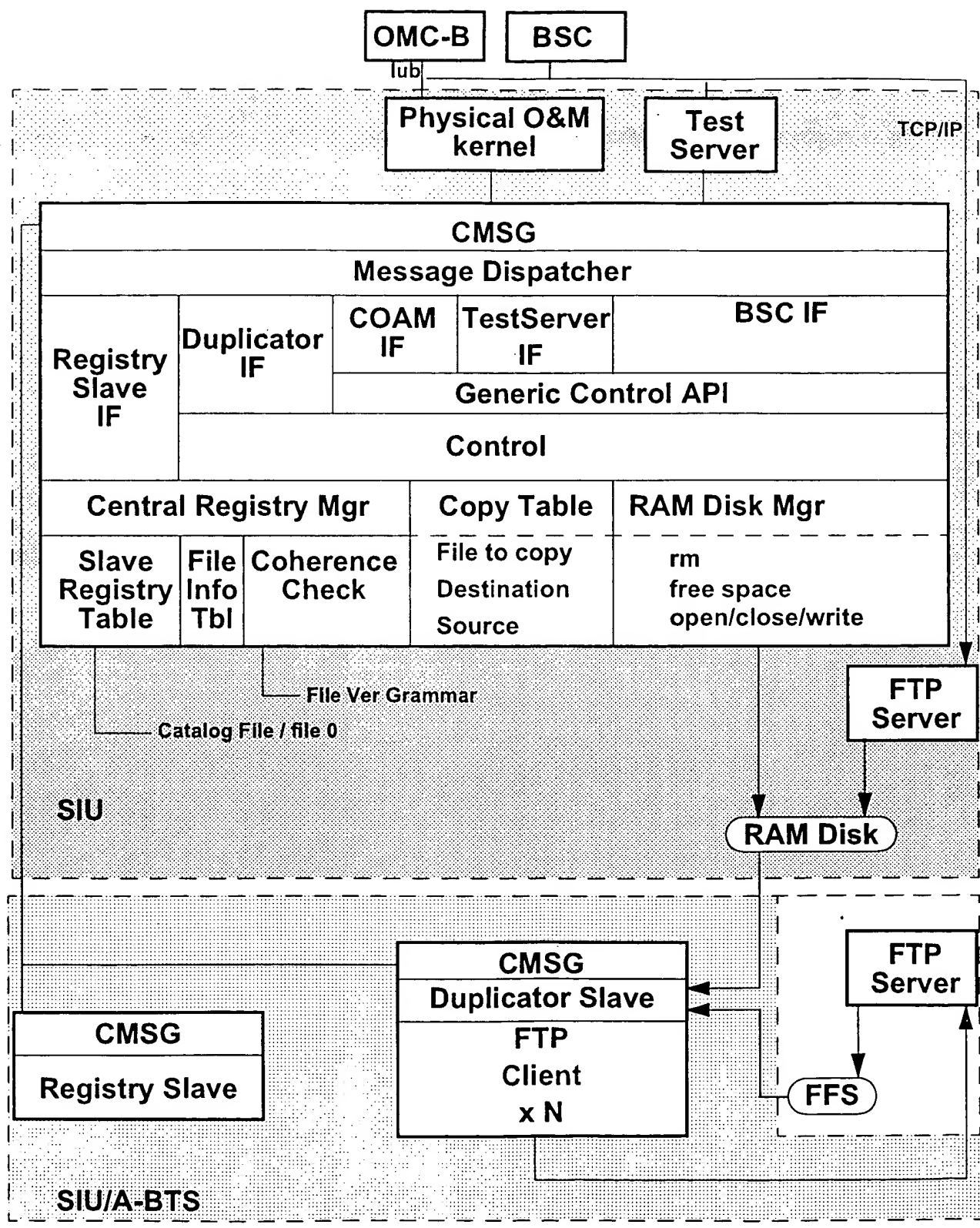


FIG. 27

2800

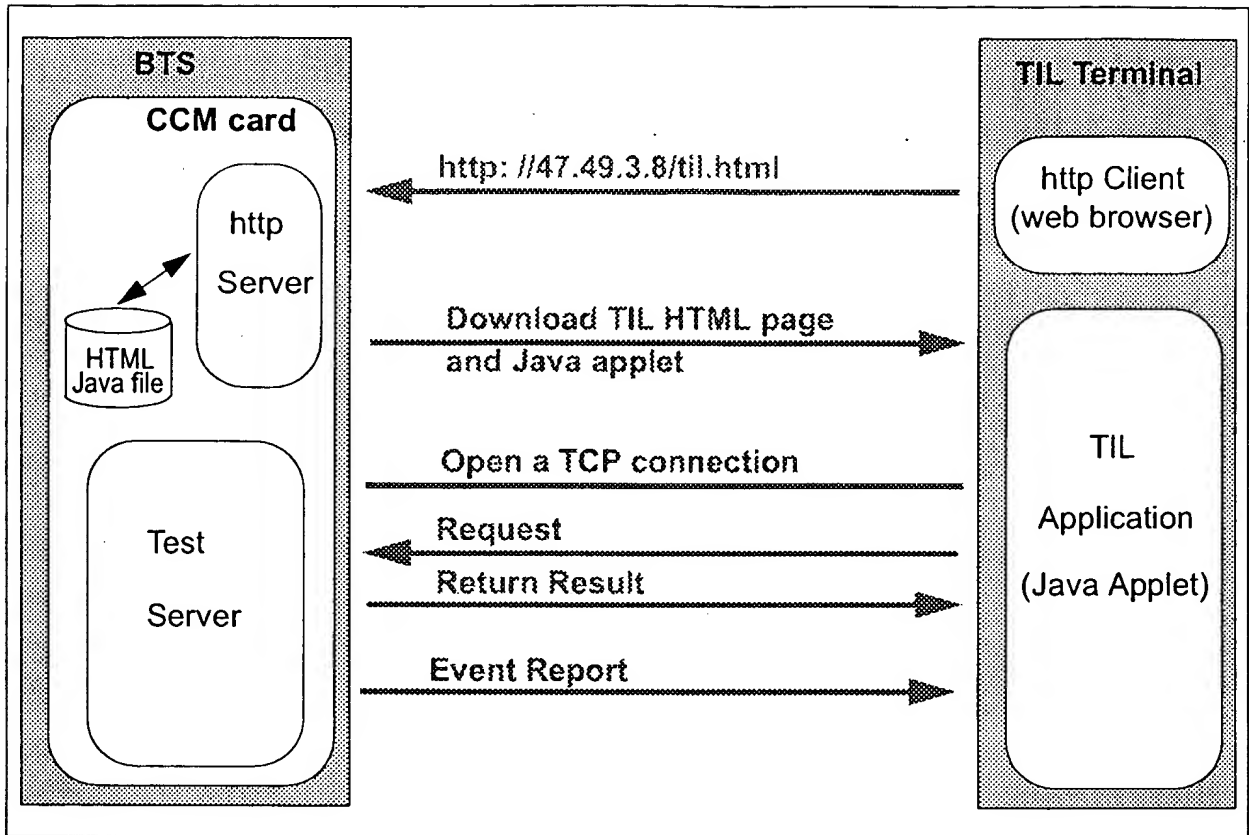


FIG. 28

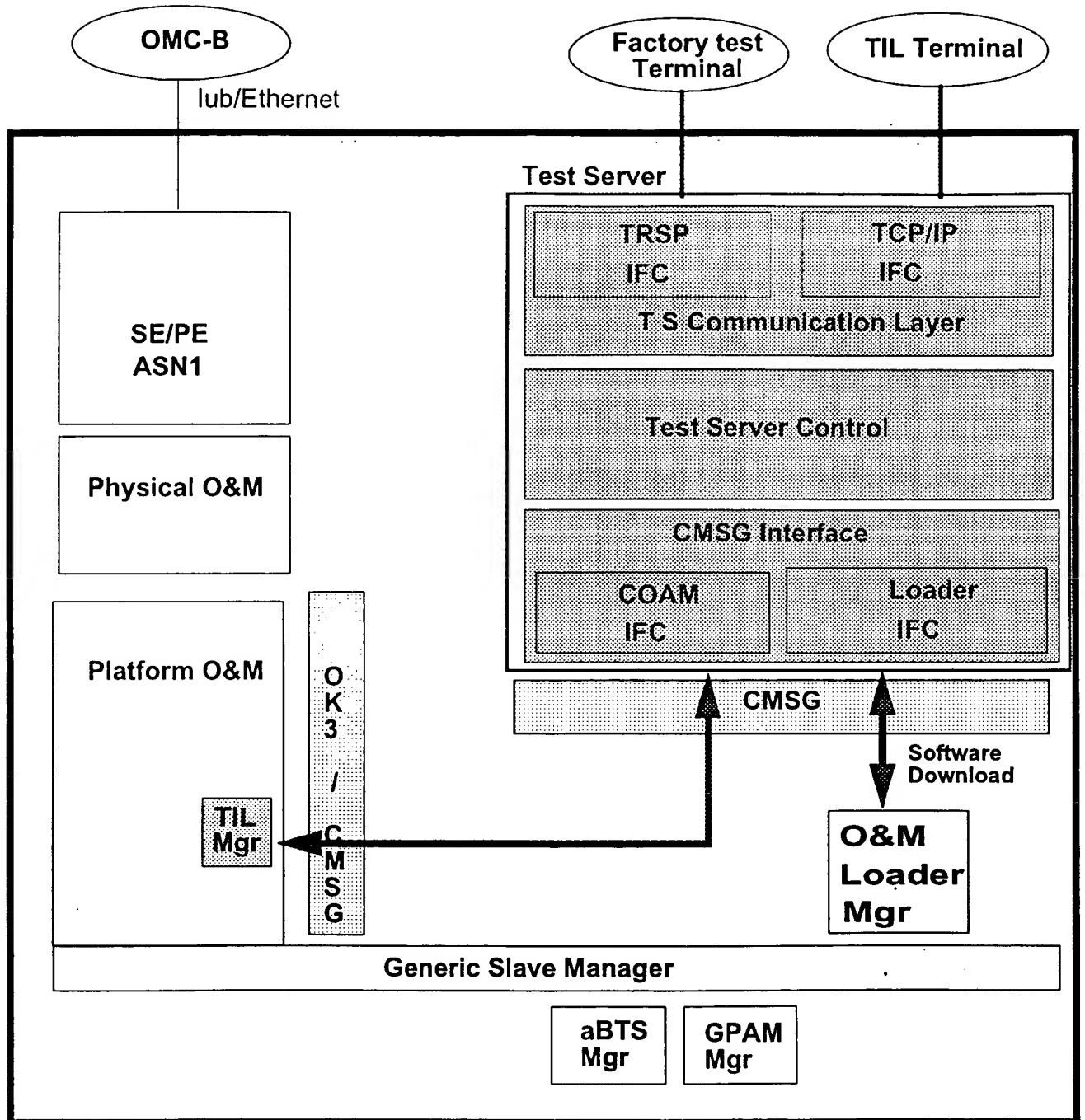
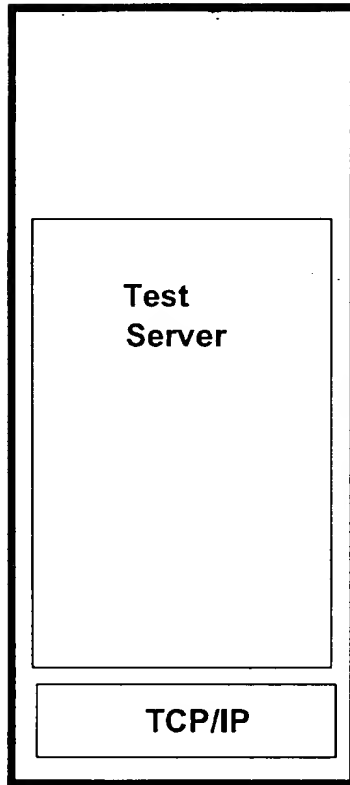
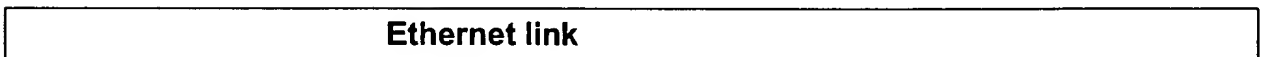
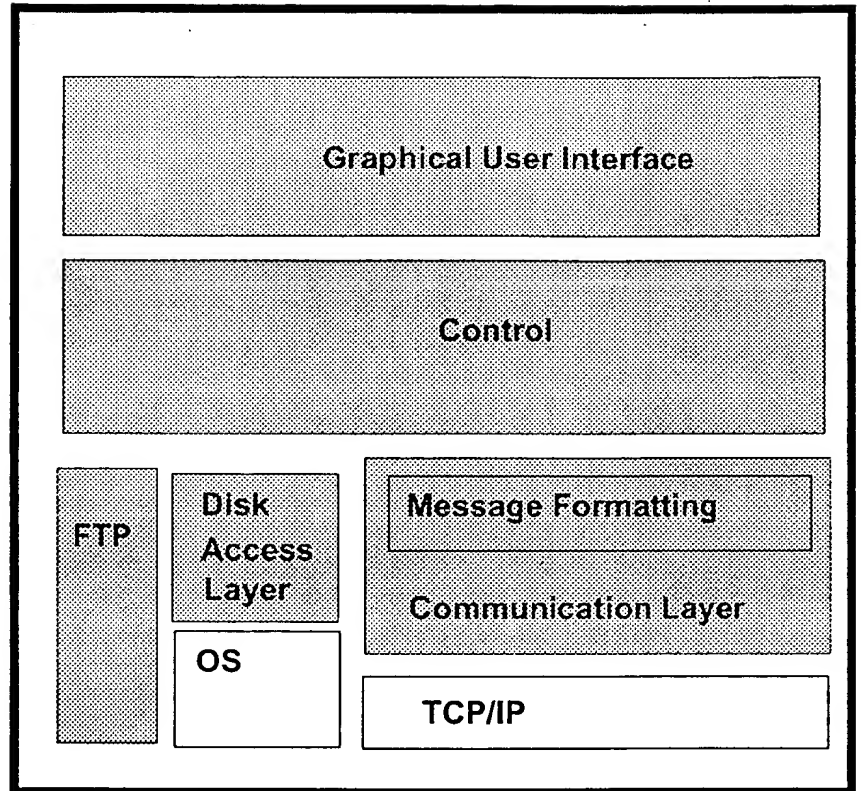


FIG. 29

SIU card



TIL Terminal



TIL Application Layers

FIG. 30

53100

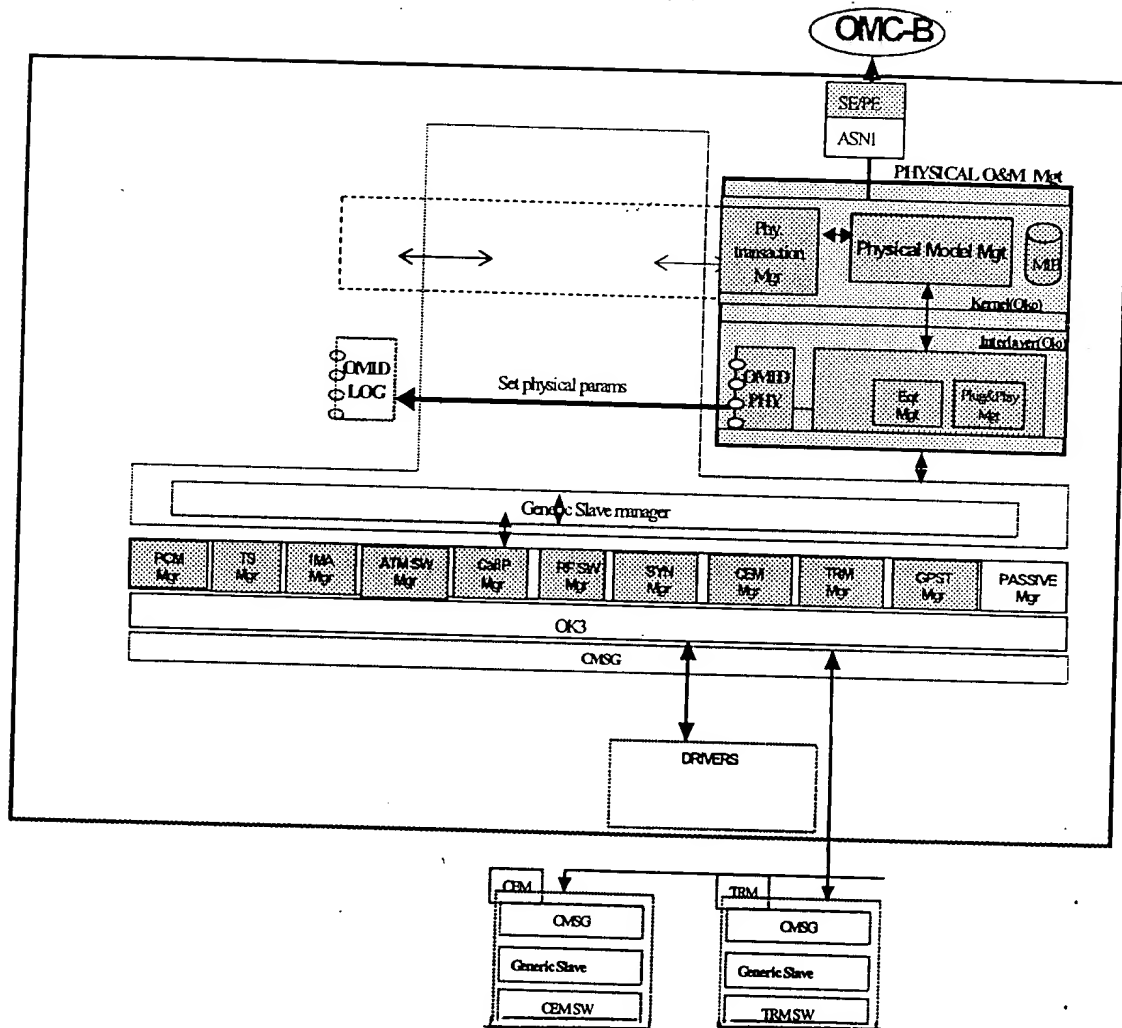


FIG. 31

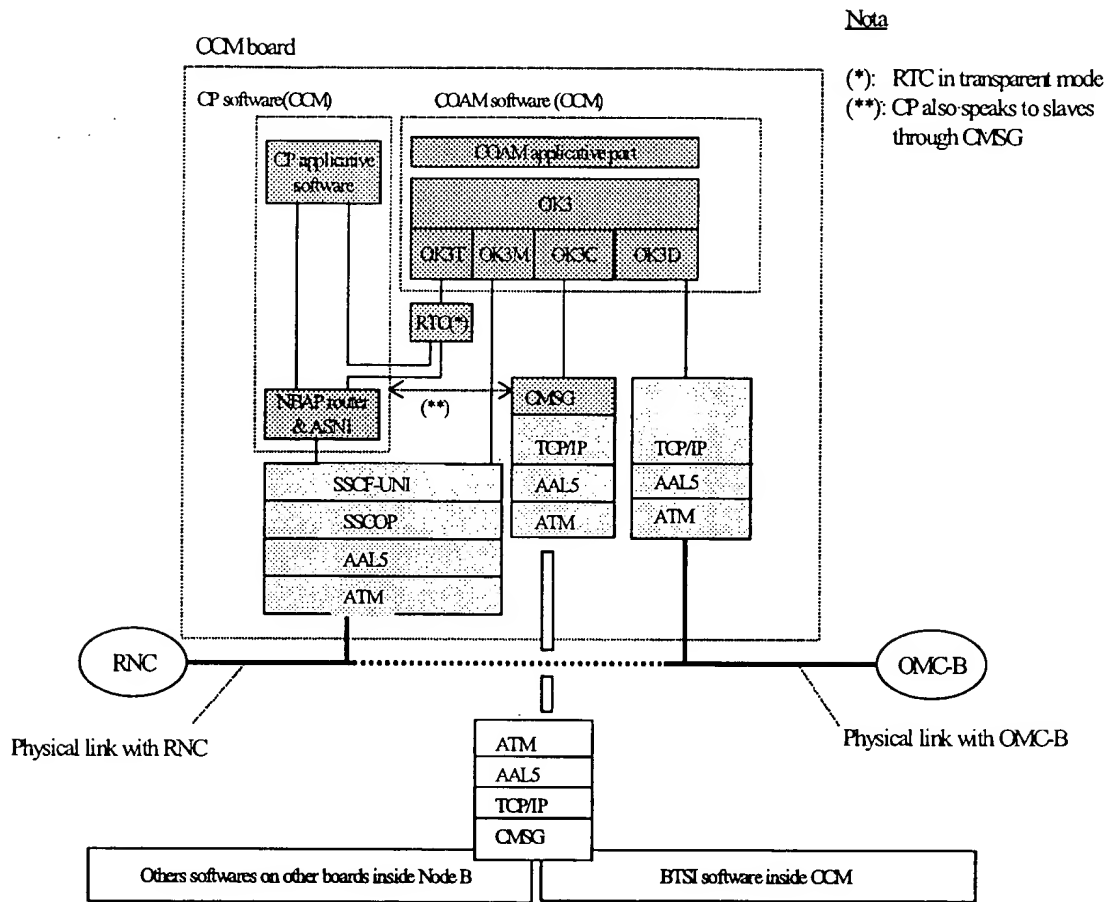


FIG. 33

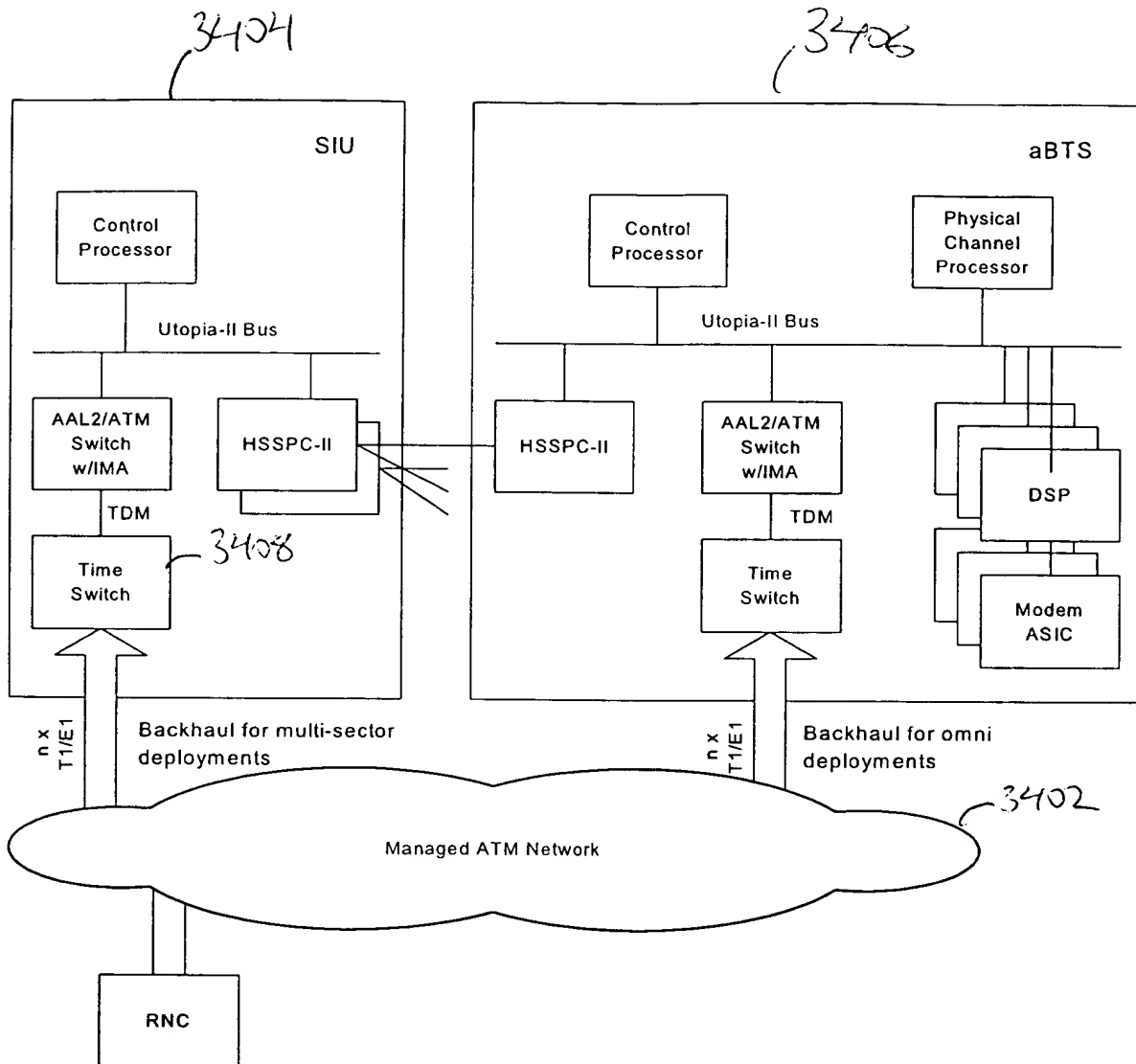


FIG. 34

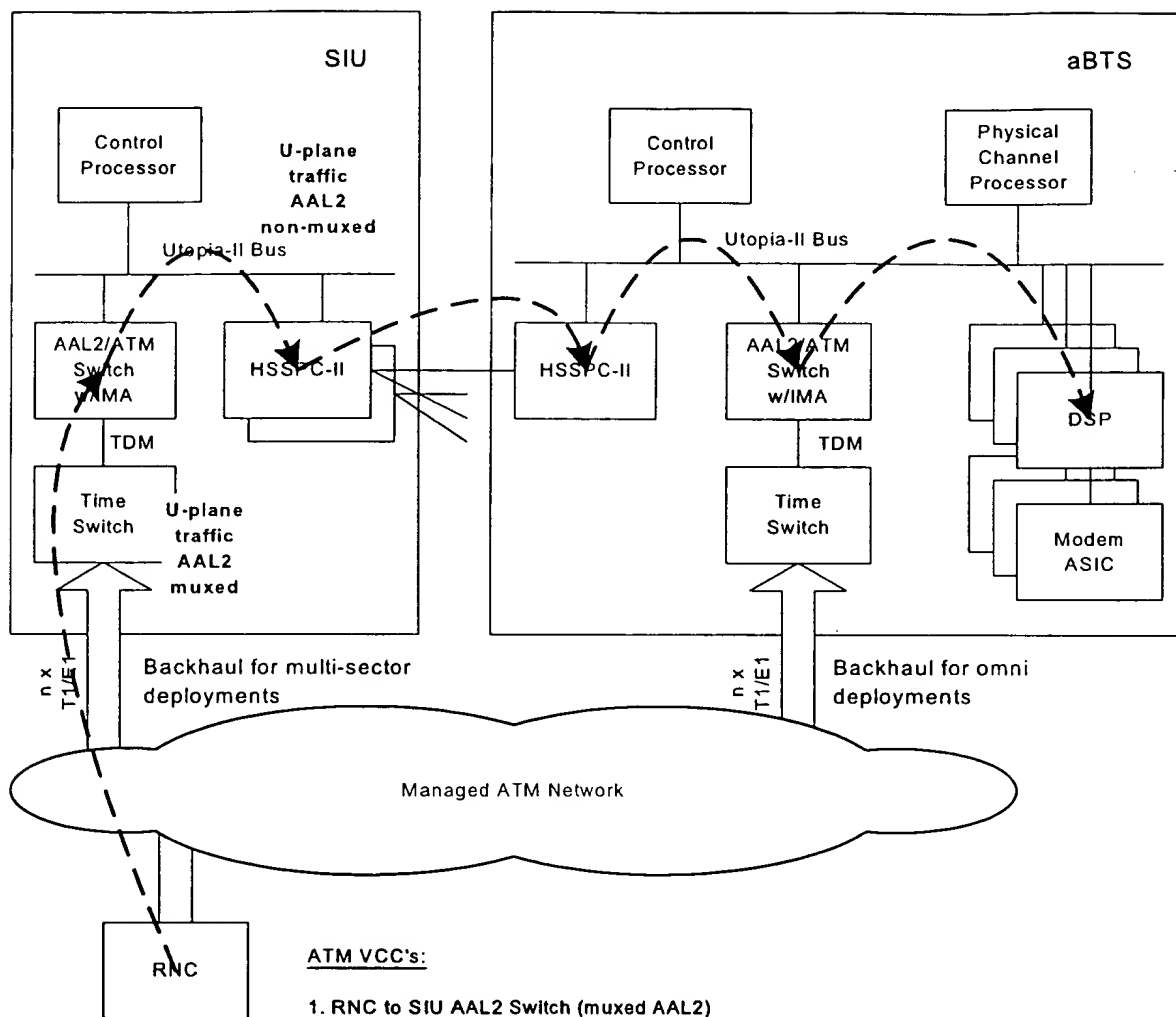


FIG. 35

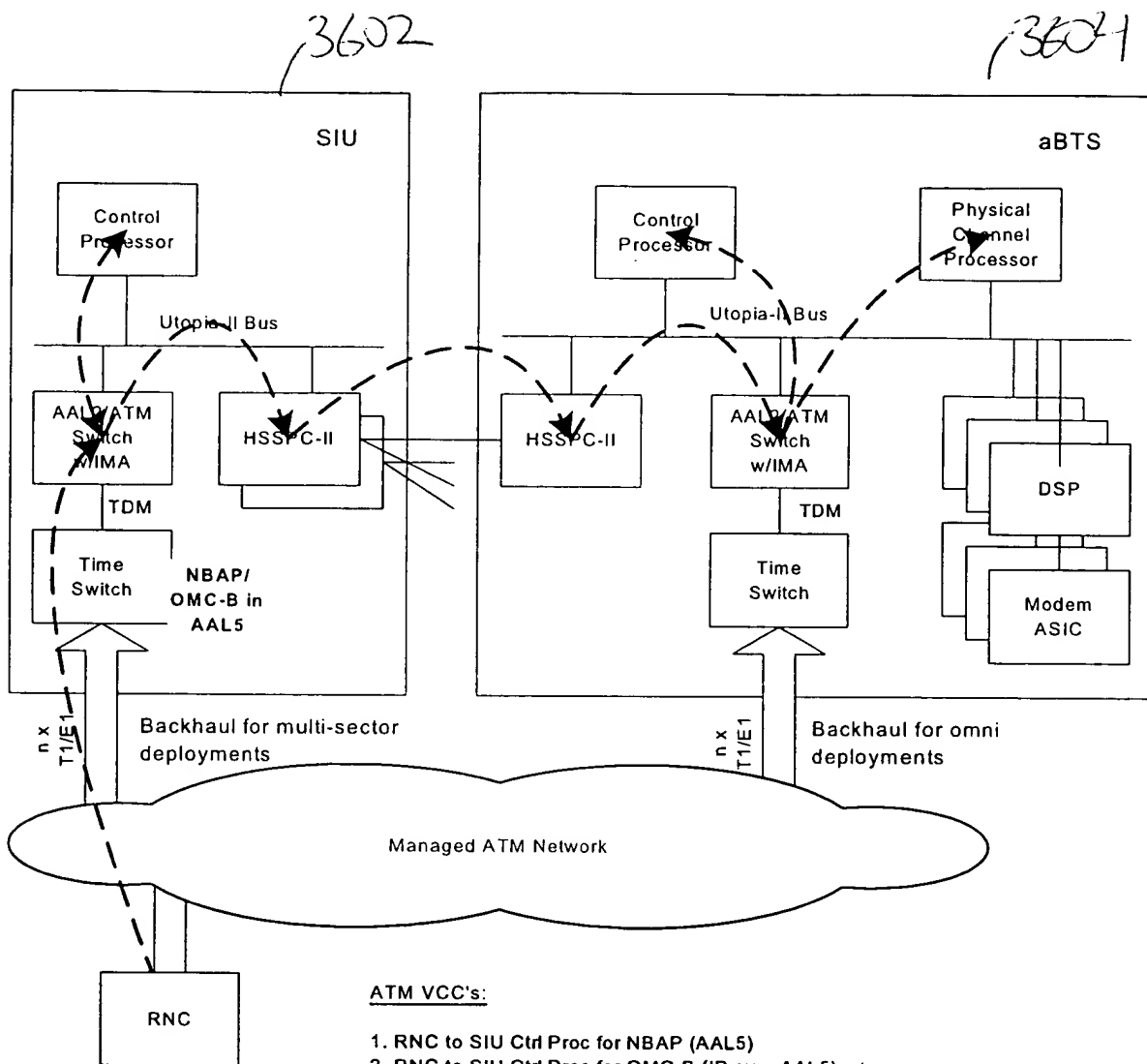


FIG. 36

UMTS'99 (ATMbackhaul) NBAP Flow

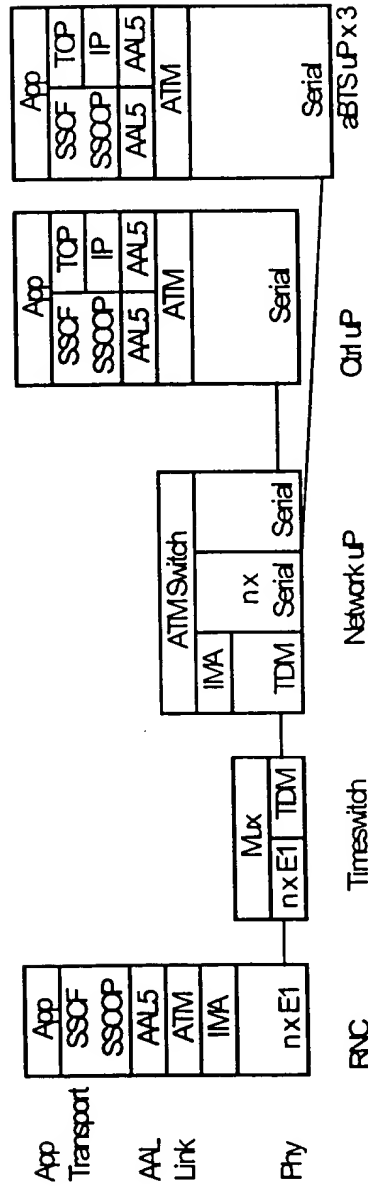


FIG. 37

UMTS '99 (ATM backhaul) OMC-B Flow

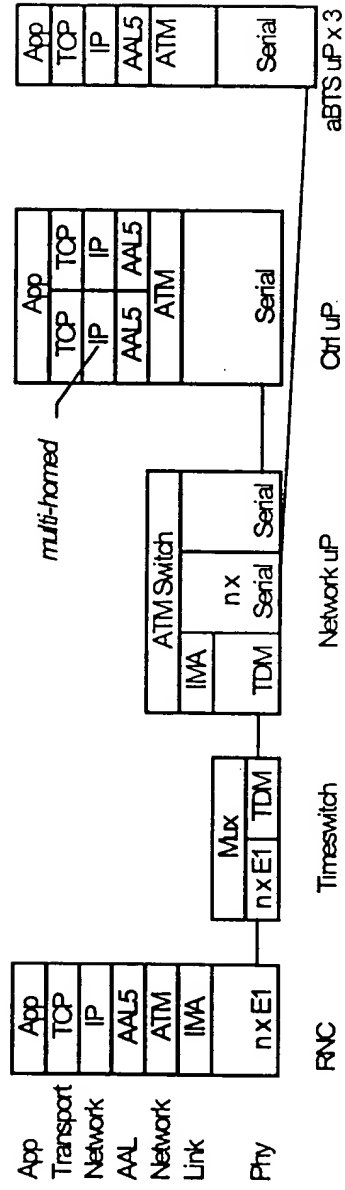


FIG. 38

UMTS '99 (ATM backhaul) User Flow

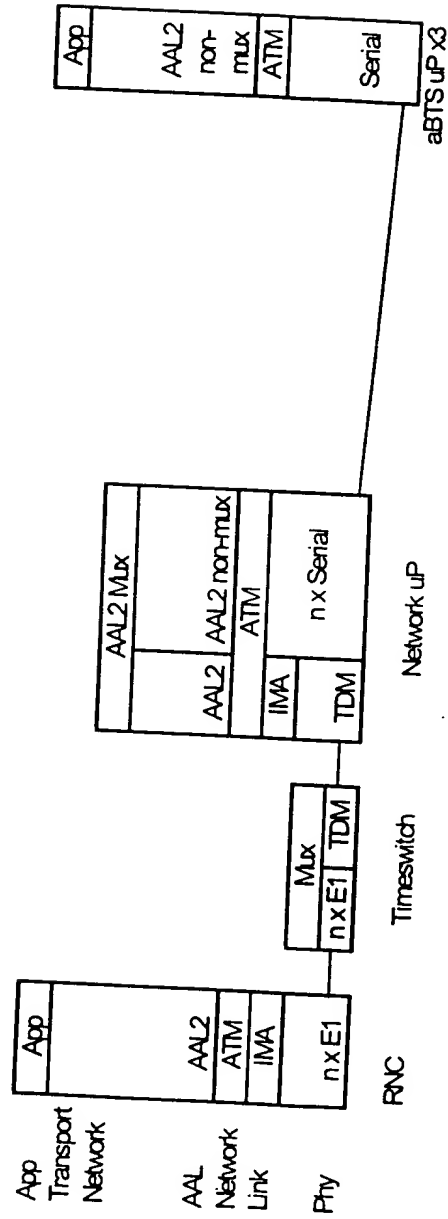
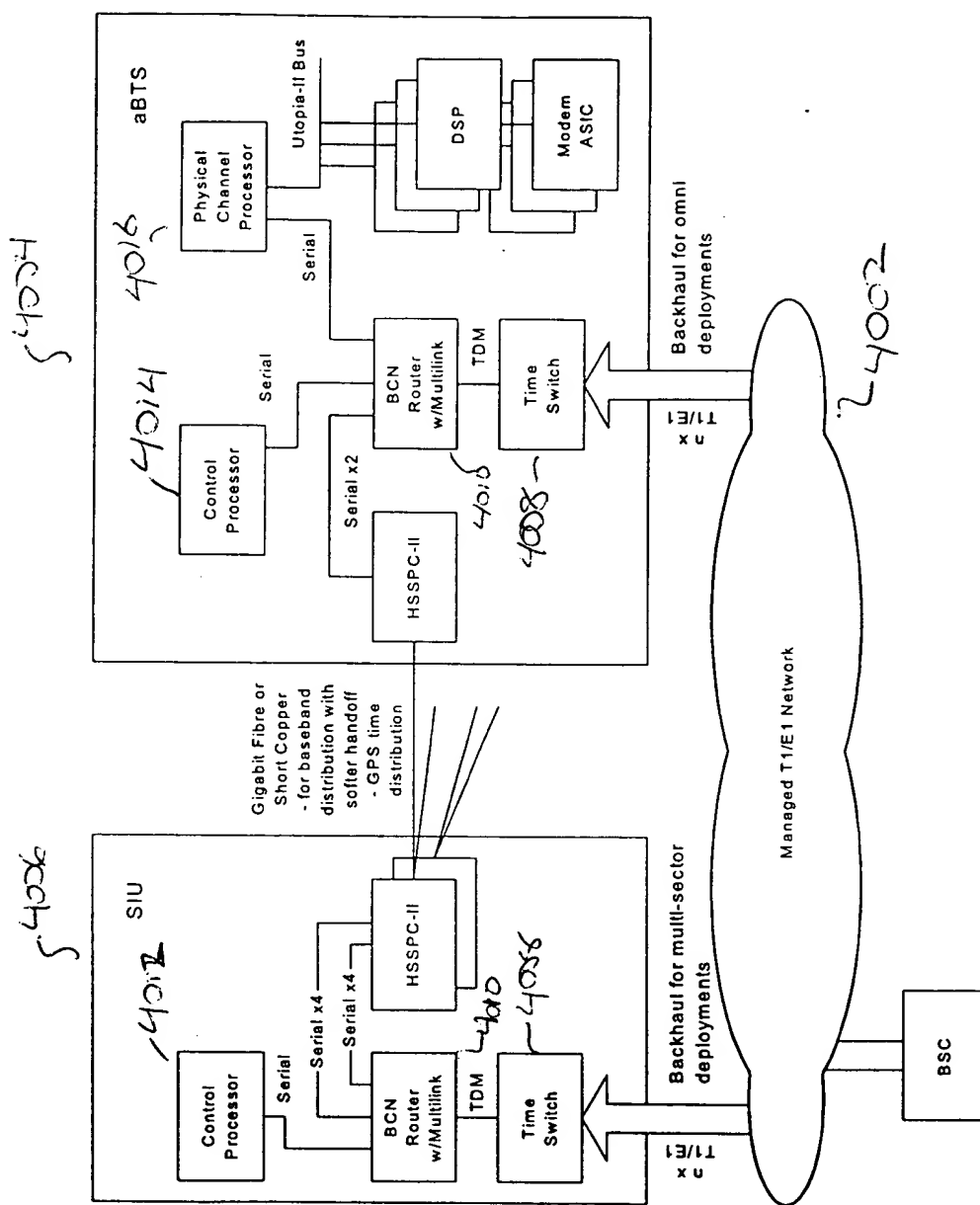


FIG. 39



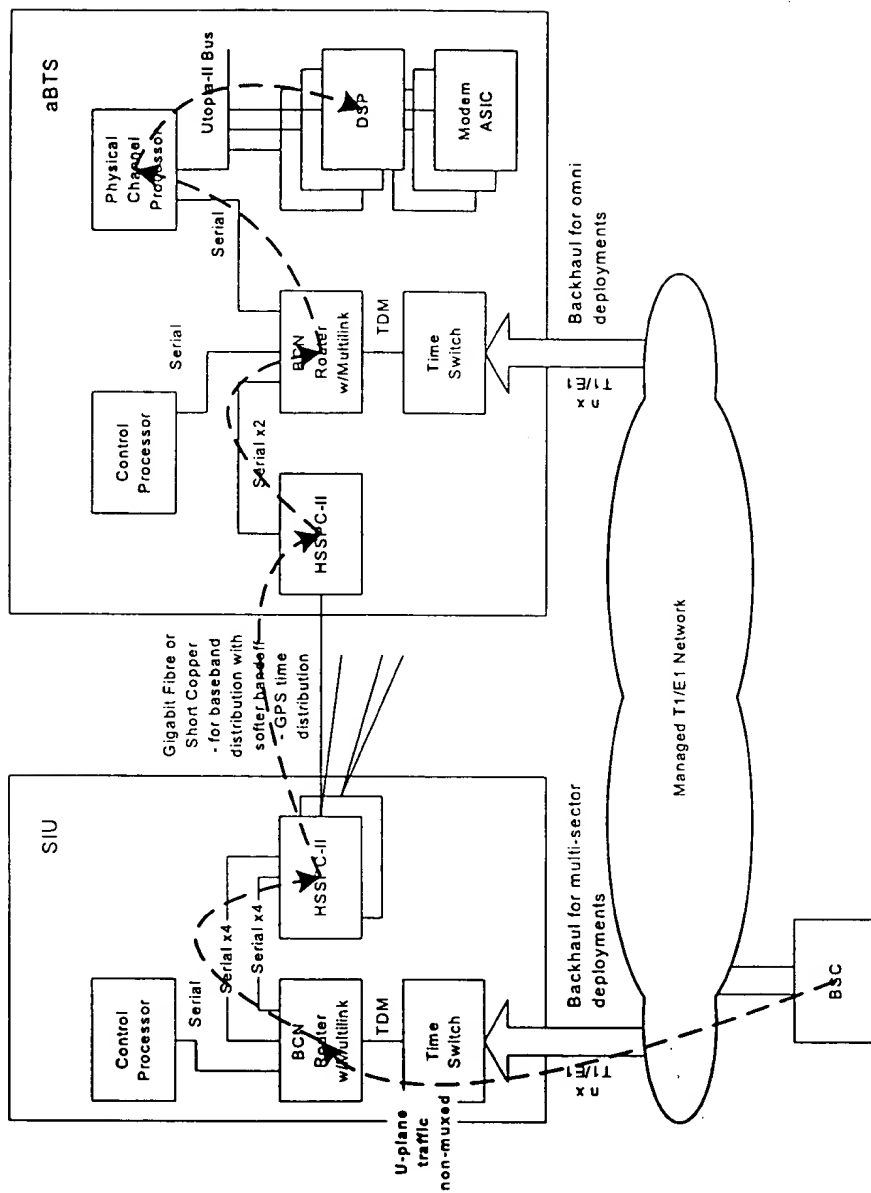


FIG. 41

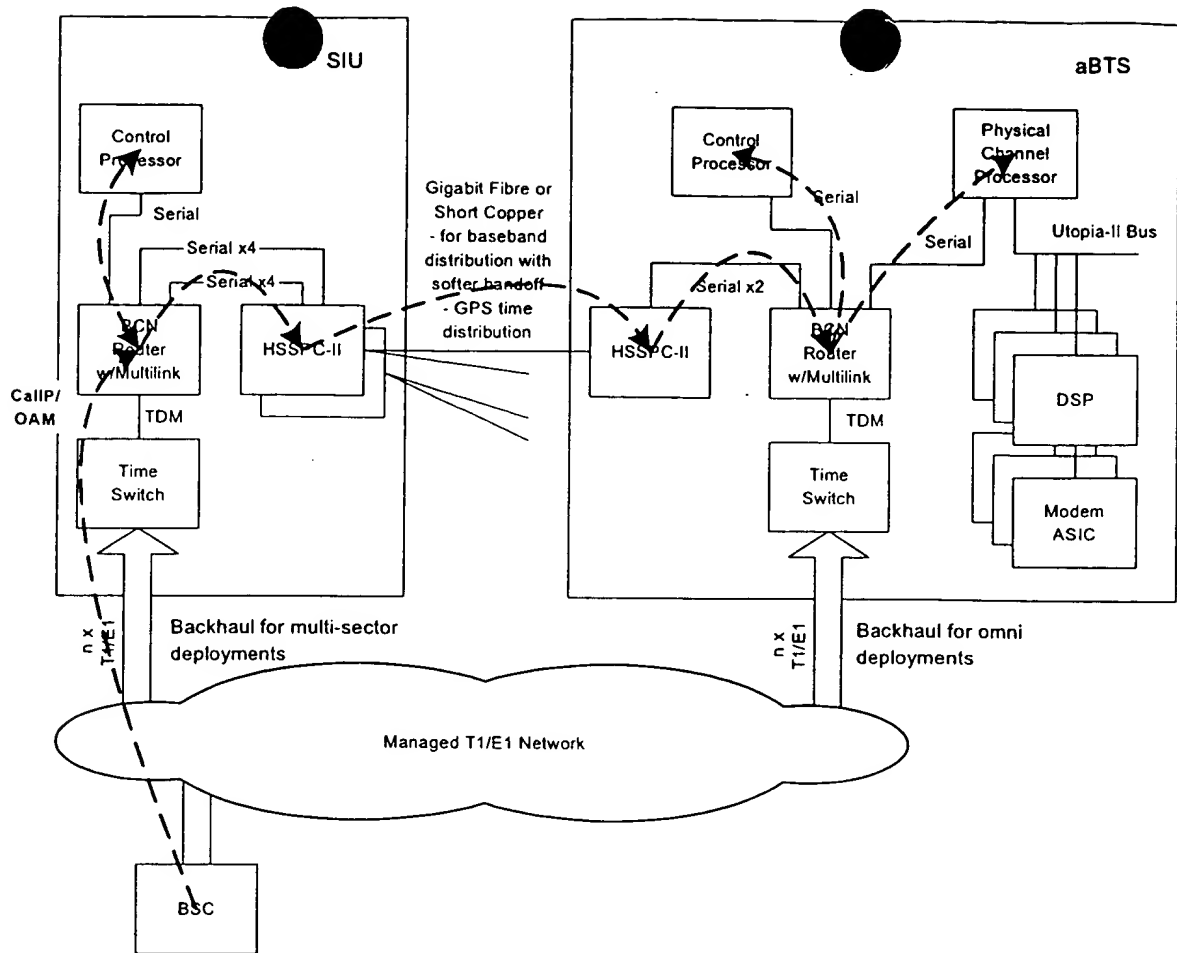


FIG. 42

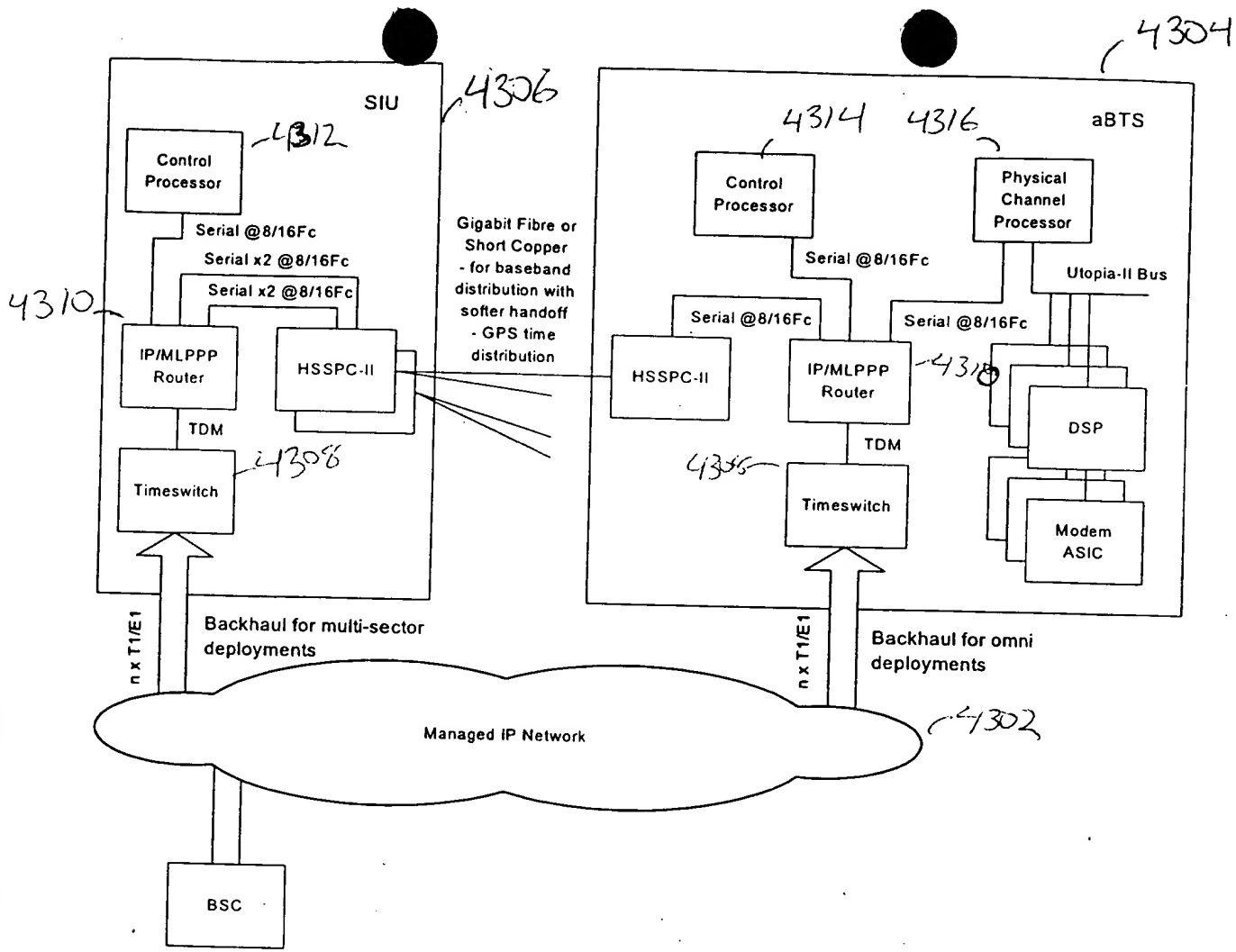


FIG. 43

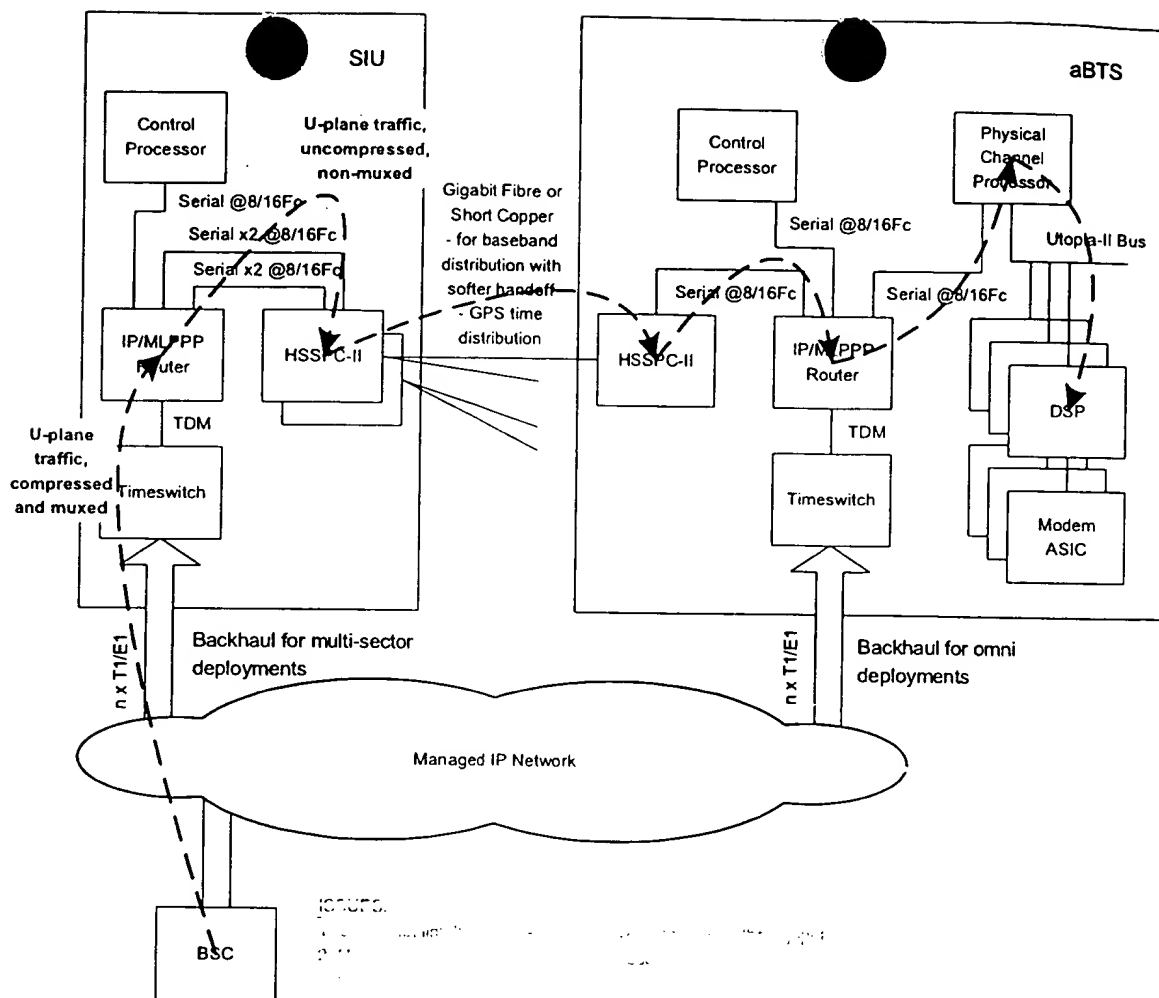


FIG. 44

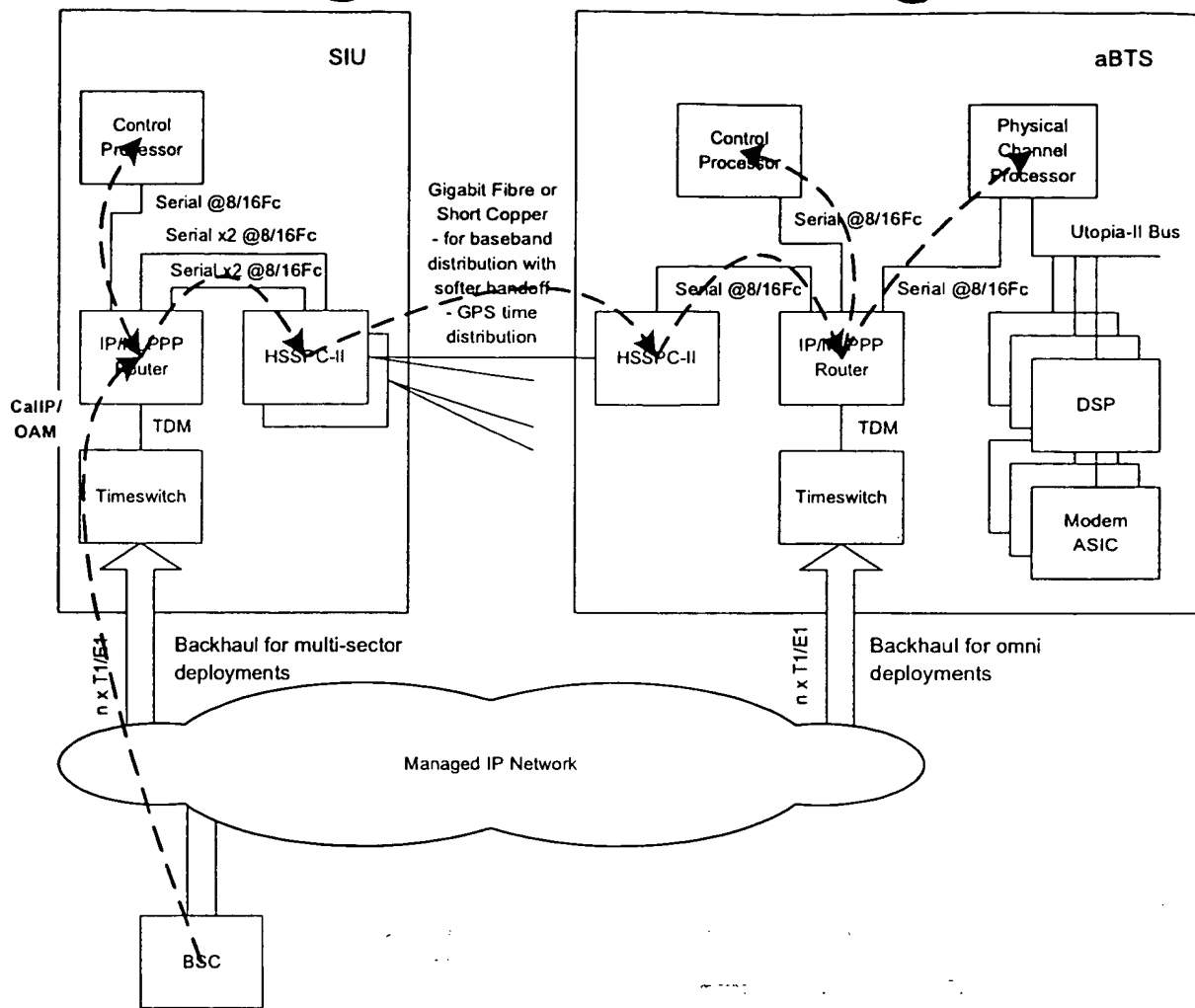


FIG. 45

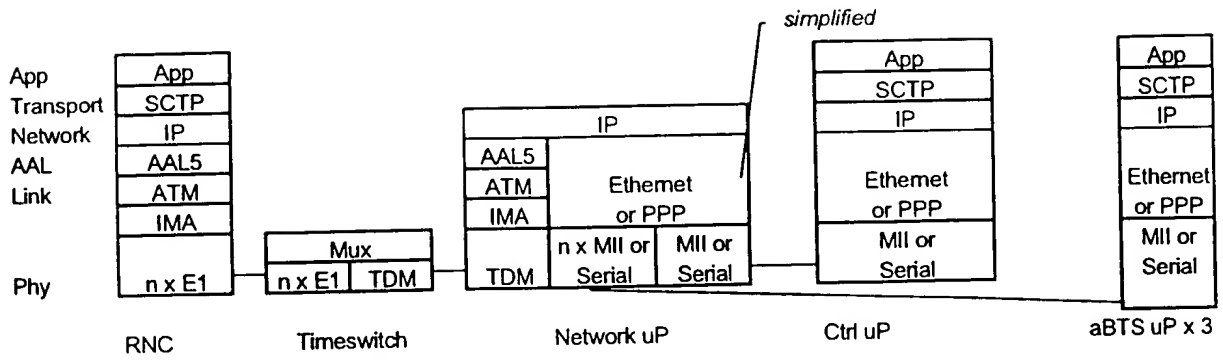


FIG. 46

UMTS '00 (IPoA backhaul) OMC-B Flow / CDMA OAM

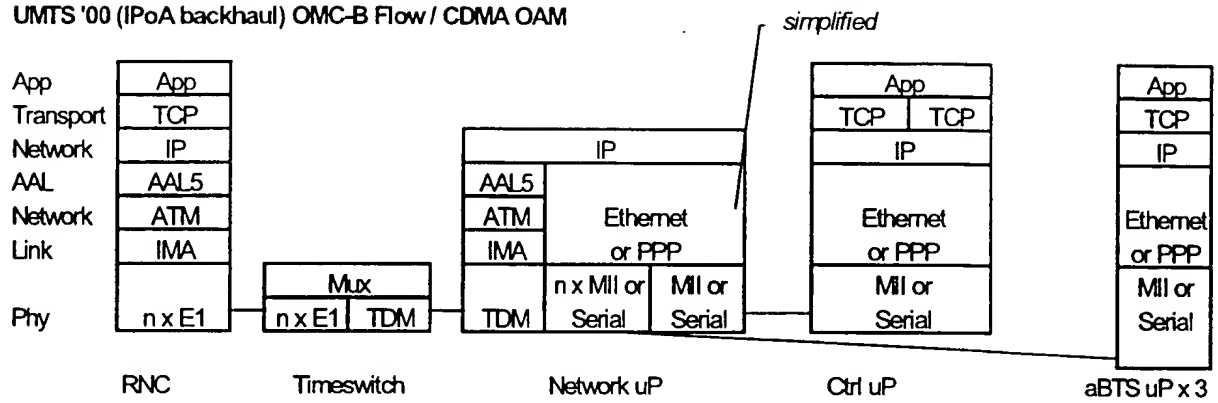


FIG. 47

UMTS '00 (IPoA backhaul) User Flow / CDMA A.bis User Traffic

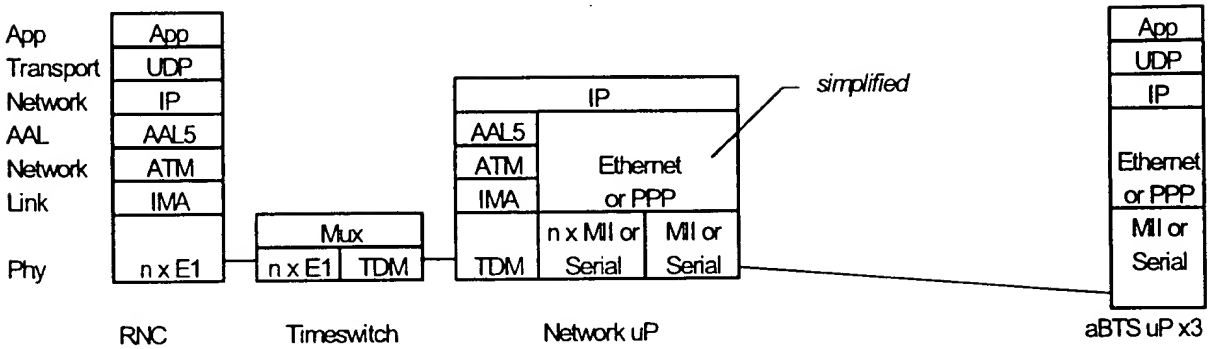


FIG. 48

FIG. 49 is a block diagram of a network architecture for a multi-sector deployment. The diagram shows a Managed Ethernet Network (4902) connected to a BSC (Base Station Controller) and two Base Stations (BS). The BS on the left is labeled SIU (4906) and the BS on the right is labeled aBTS (4904). The SIU (4906) includes a Control Processor (4912), an Ethernet Switch (4910), a 10/100 BaseTX PHY (4908), and an HSSPC-II (4914). The aBTS (4904) includes a Control Processor (4914), a Physical Channel Processor (4916), an Ethernet Switch (4910), a 10/100 BaseTX PHY (4908), an HSSPC-II (4914), a DSP (4918), and a Modem ASIC (4920). The SIU (4906) and aBTS (4904) are connected via Gigabit Fibre or Short Copper (4914) for baseband distribution with softer handoff and GPS time distribution. The SIU (4906) is connected to the Managed Ethernet Network (4902) via a 10/100 BaseTX PHY (4908) and an Ethernet Switch (4910). The aBTS (4904) is connected to the Managed Ethernet Network (4902) via a 10/100 BaseTX PHY (4908) and an Ethernet Switch (4910). The Managed Ethernet Network (4902) is connected to the BSC (Base Station Controller) via a 10/100 BaseTX PHY (4908).

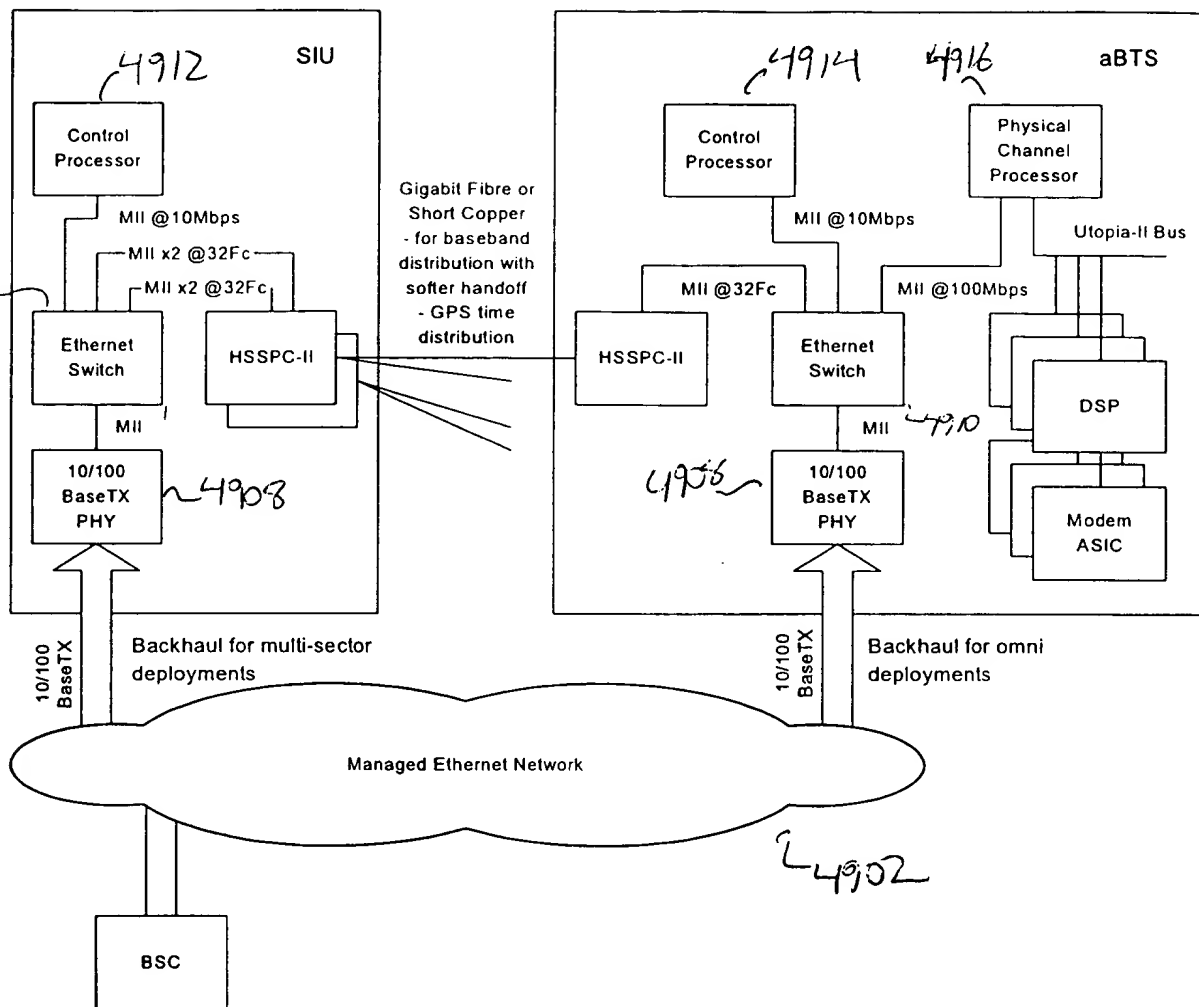


FIG. 49

UMTS '00 (IP/Ethernet backhaul) NBAP Flow / CDMA A.bis

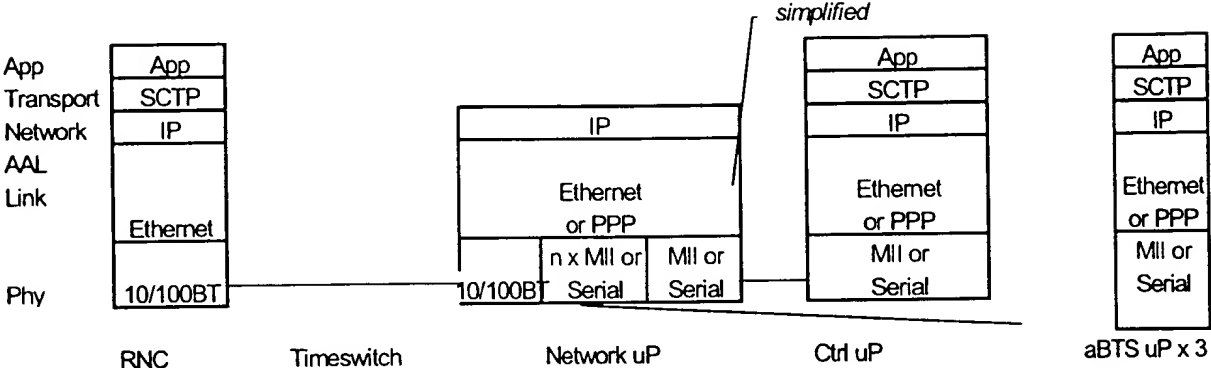


FIG. 50

UMTS '00 (IP/Ethernet backhaul) User Flow / CDMA A.bis

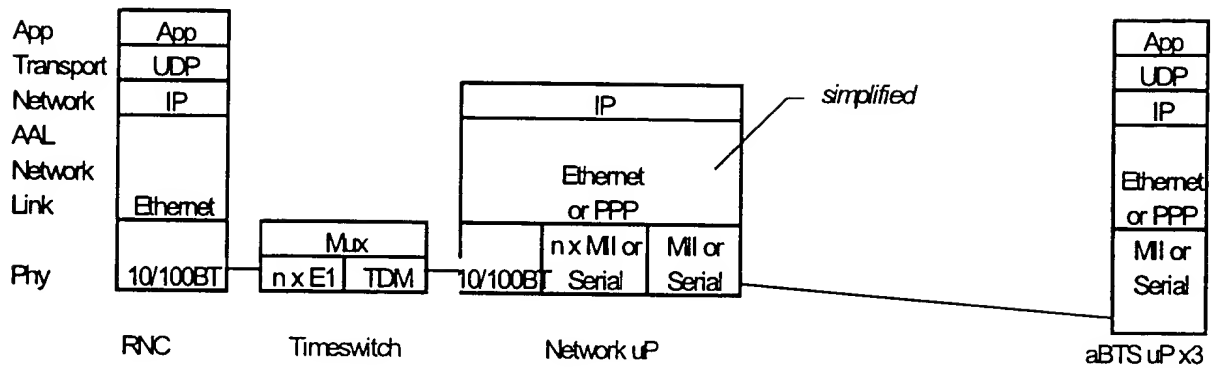
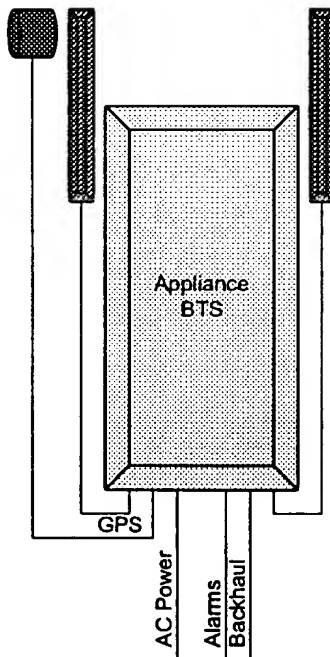


FIG. 51



5202

FIG. 52

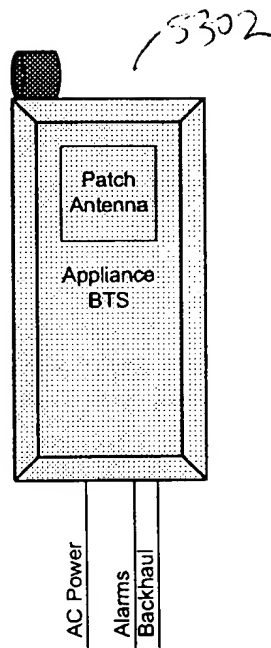


FIG 53

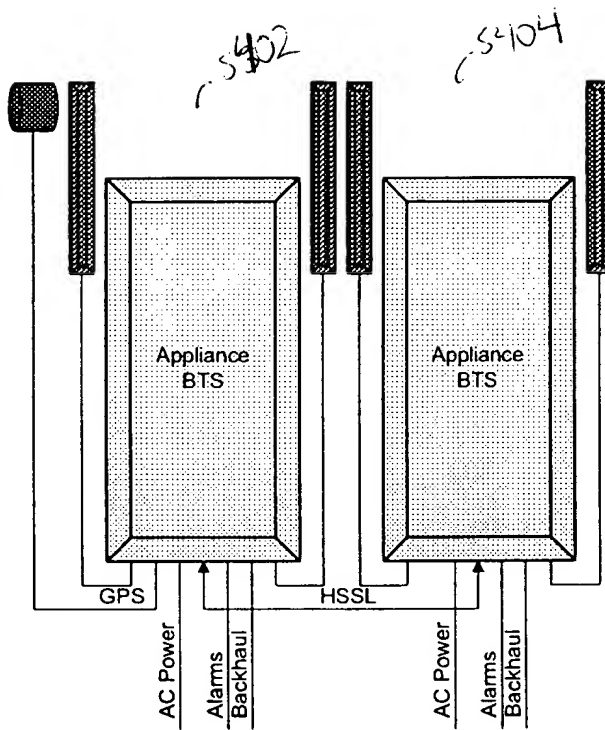


FIG. 54

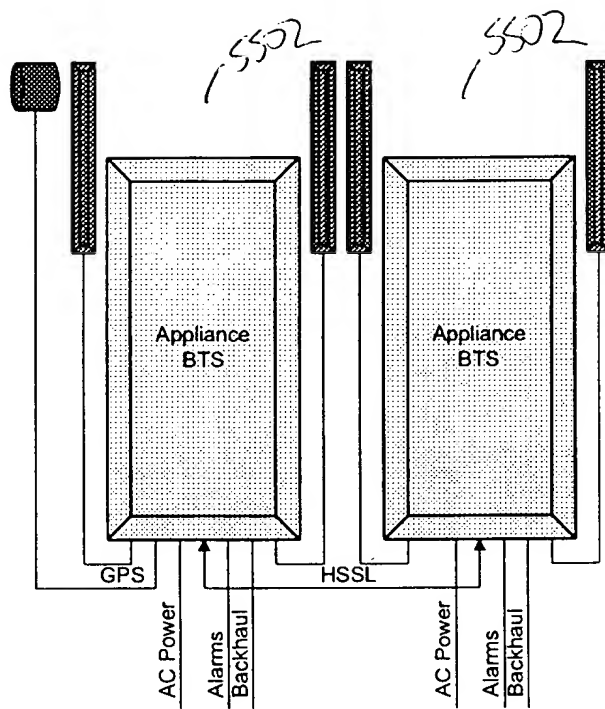


FIG. 55

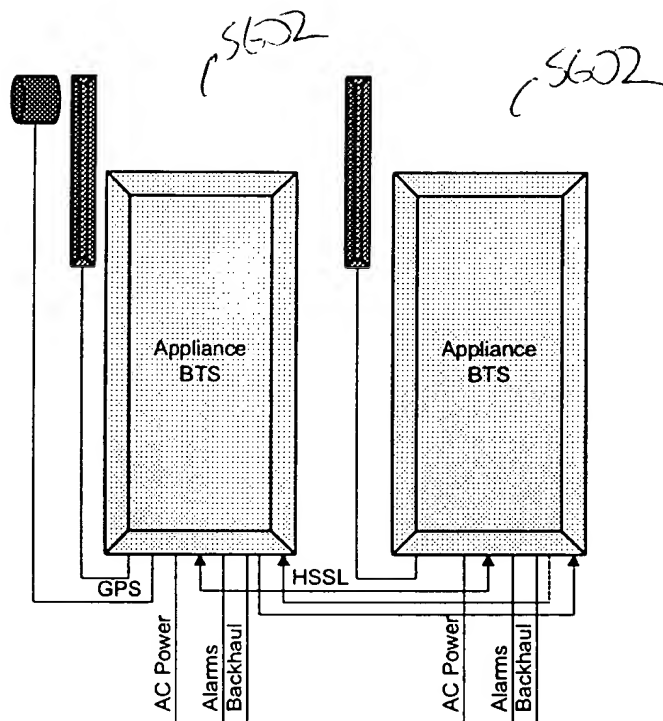


FIG. 56

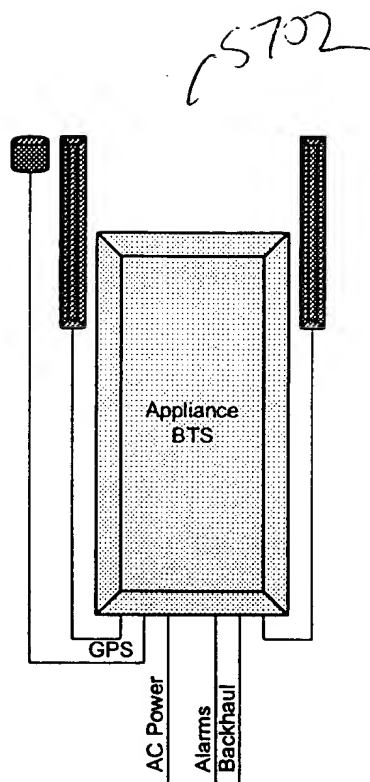


FIG. 57

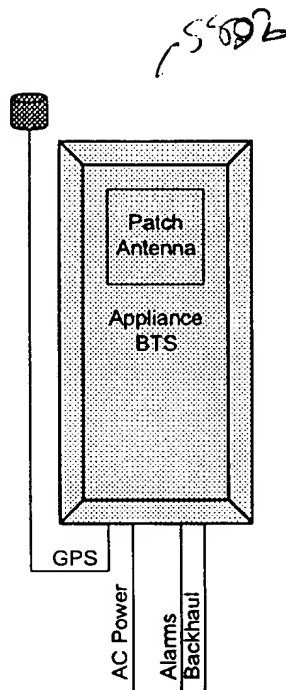


FIG. 58

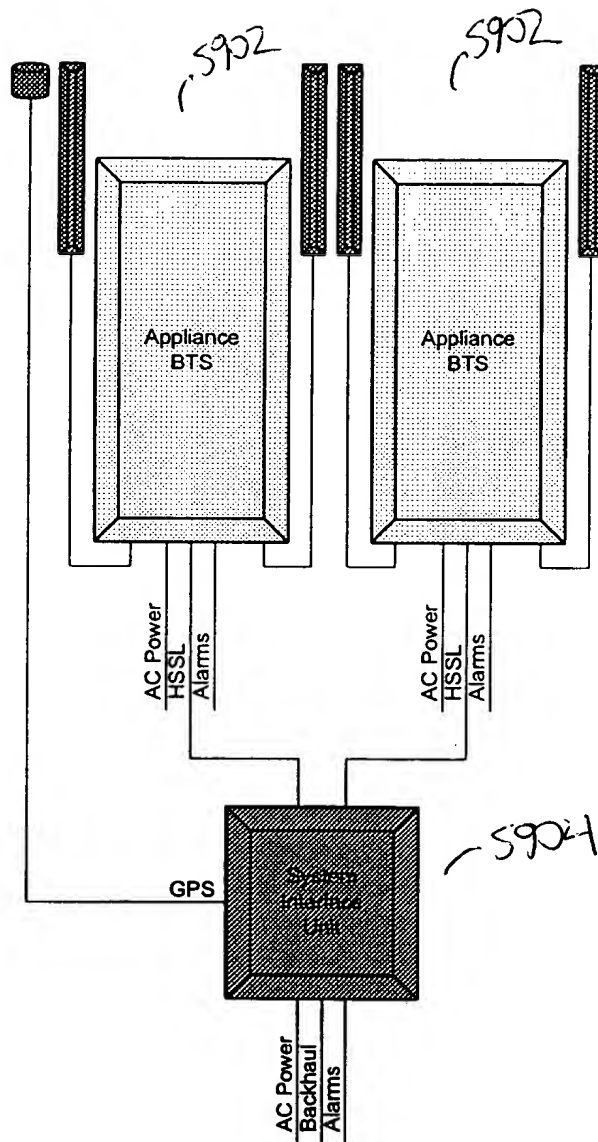


FIG. 59

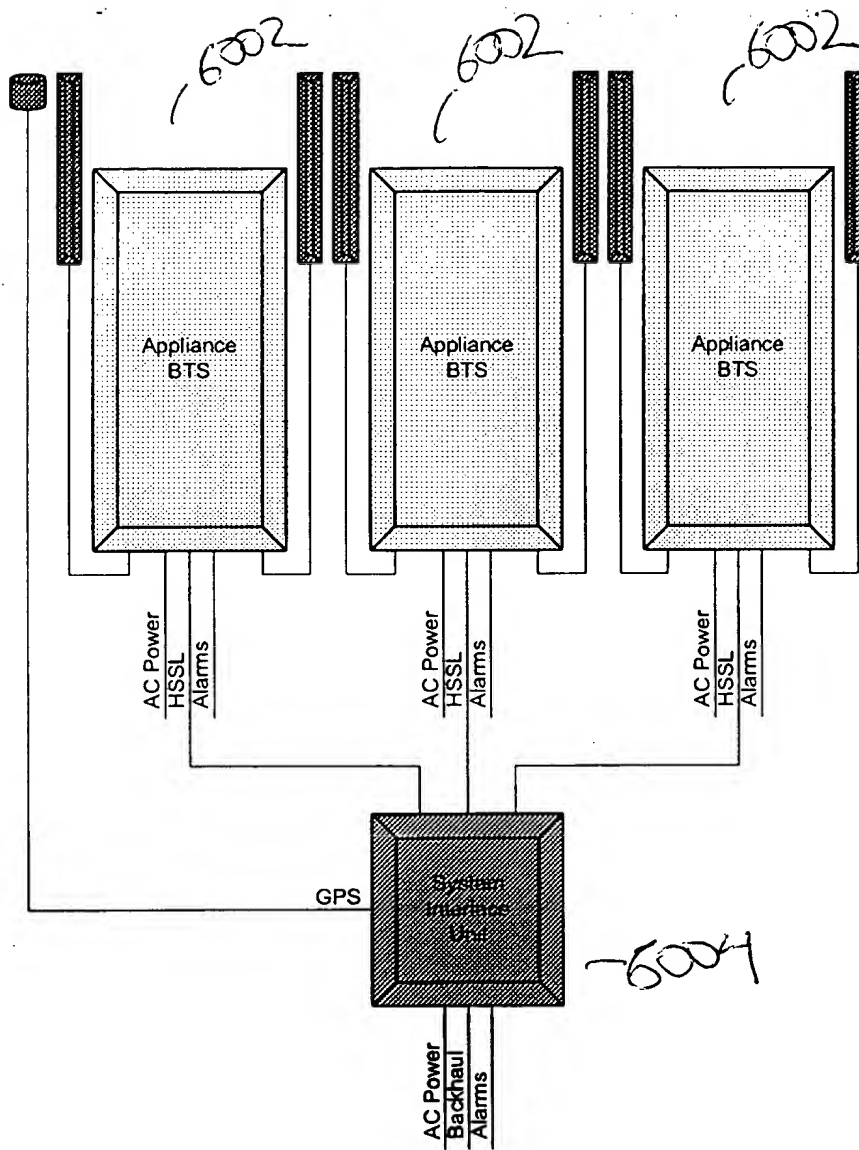


FIG. 60

6102

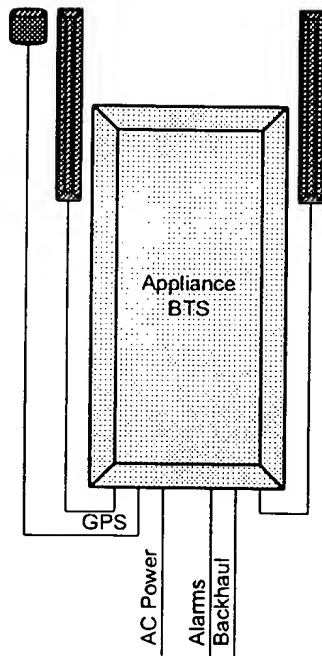


FIG. 61

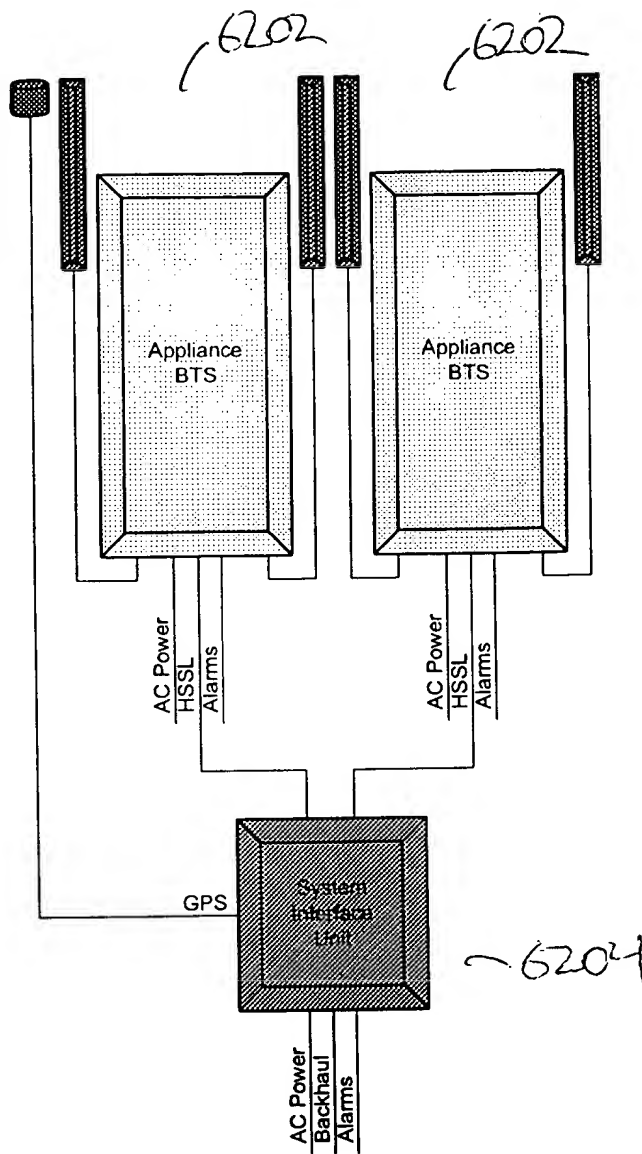


FIG. 62

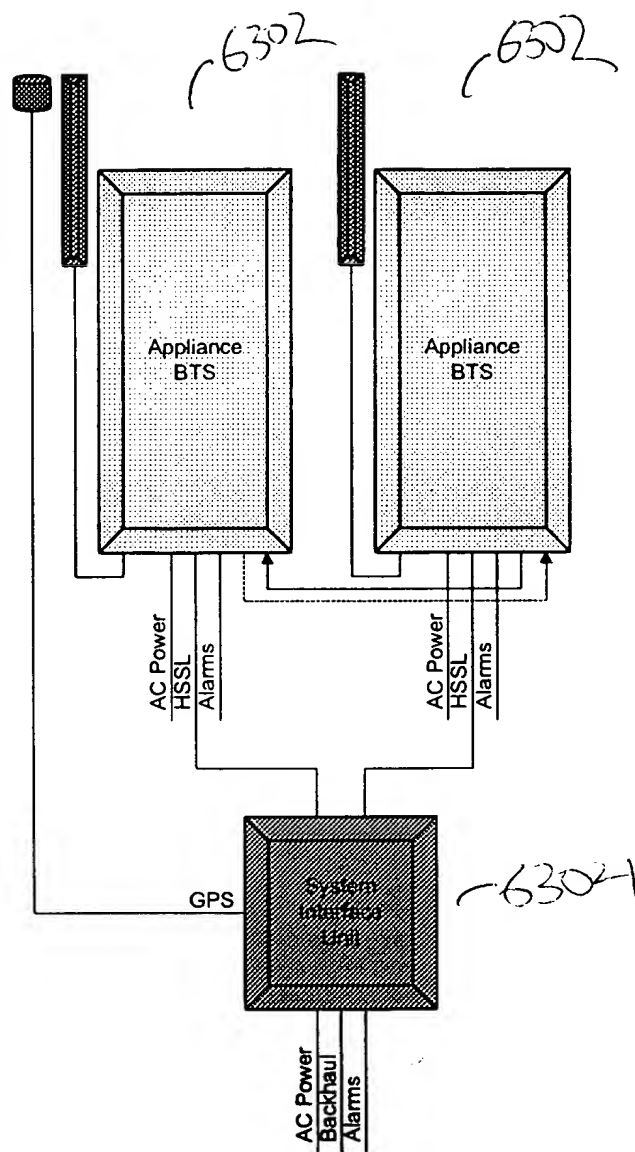


FIG. 63

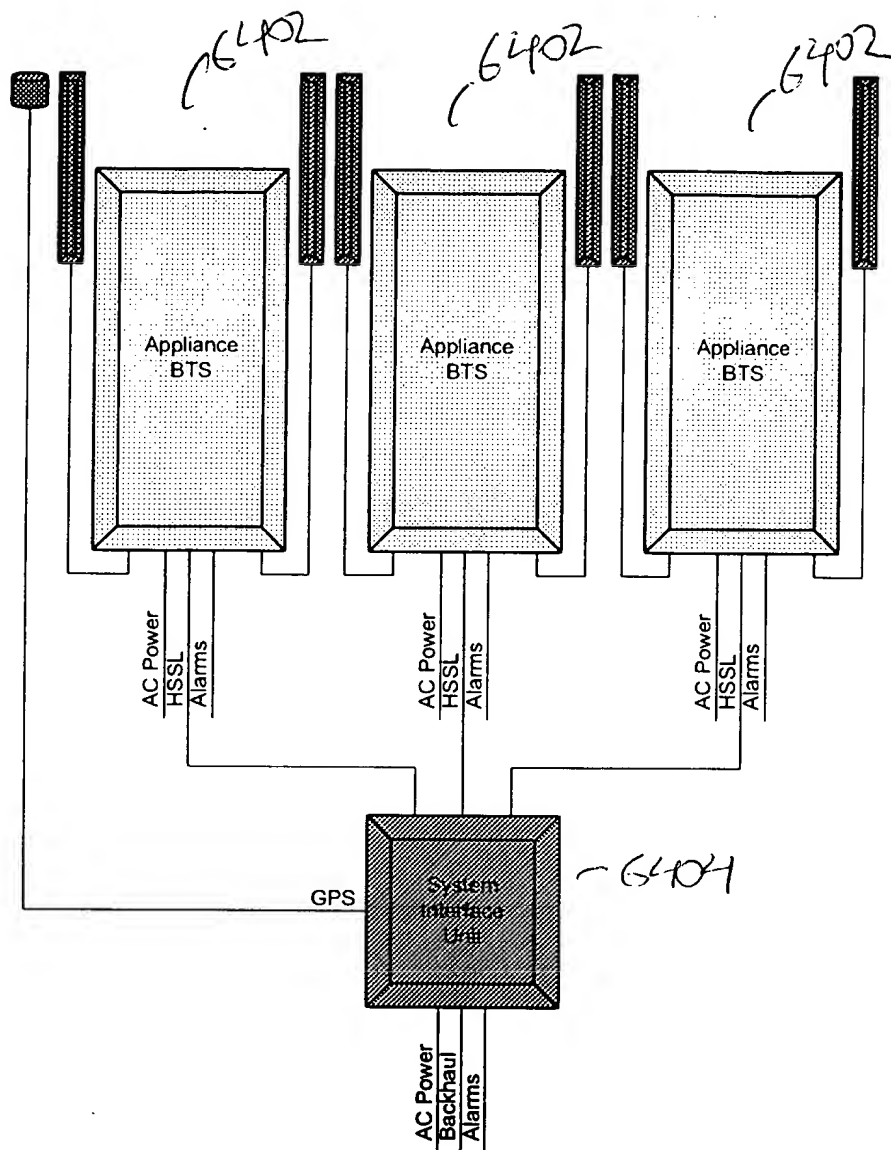


FIG.64

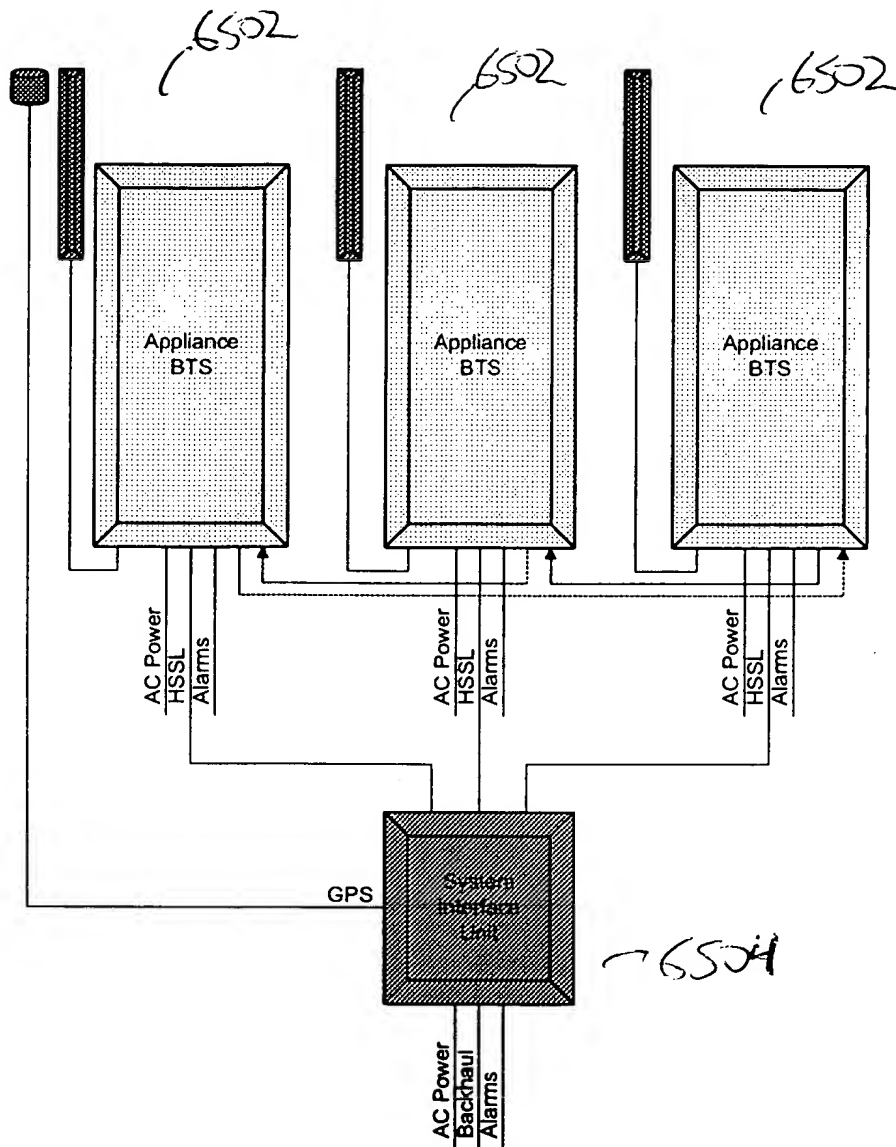


FIG. 65

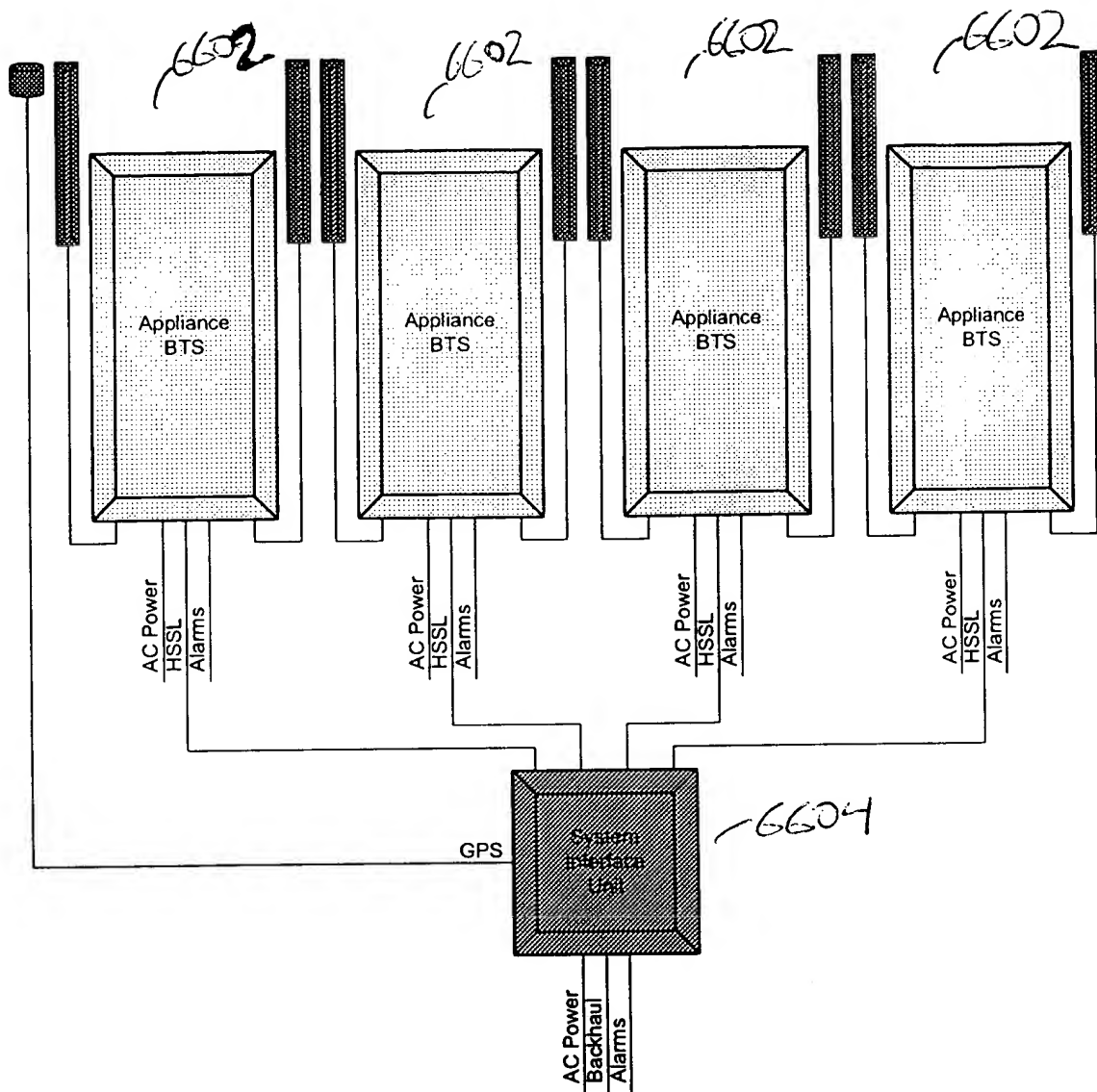


FIG.66

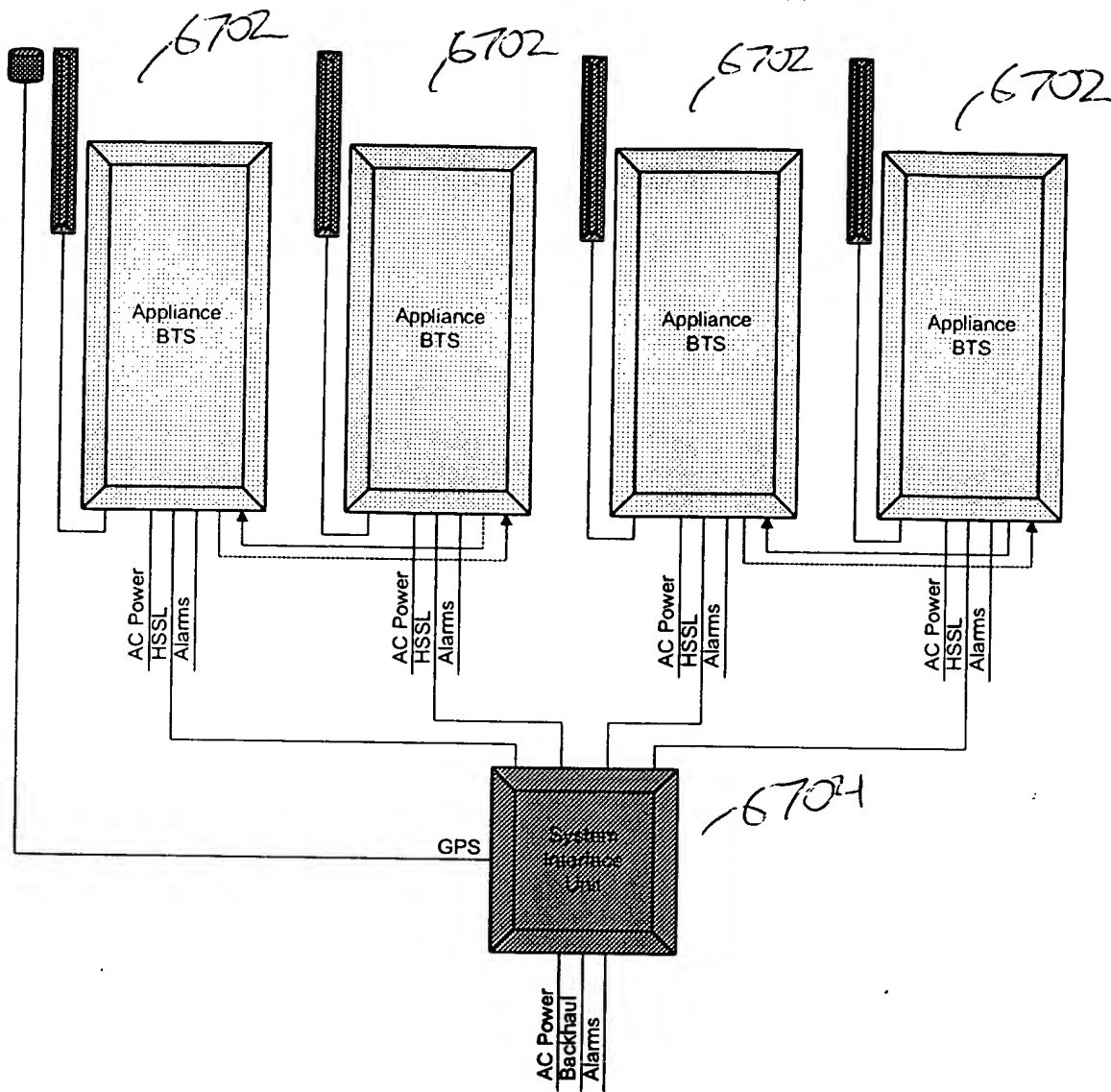


FIG. 67

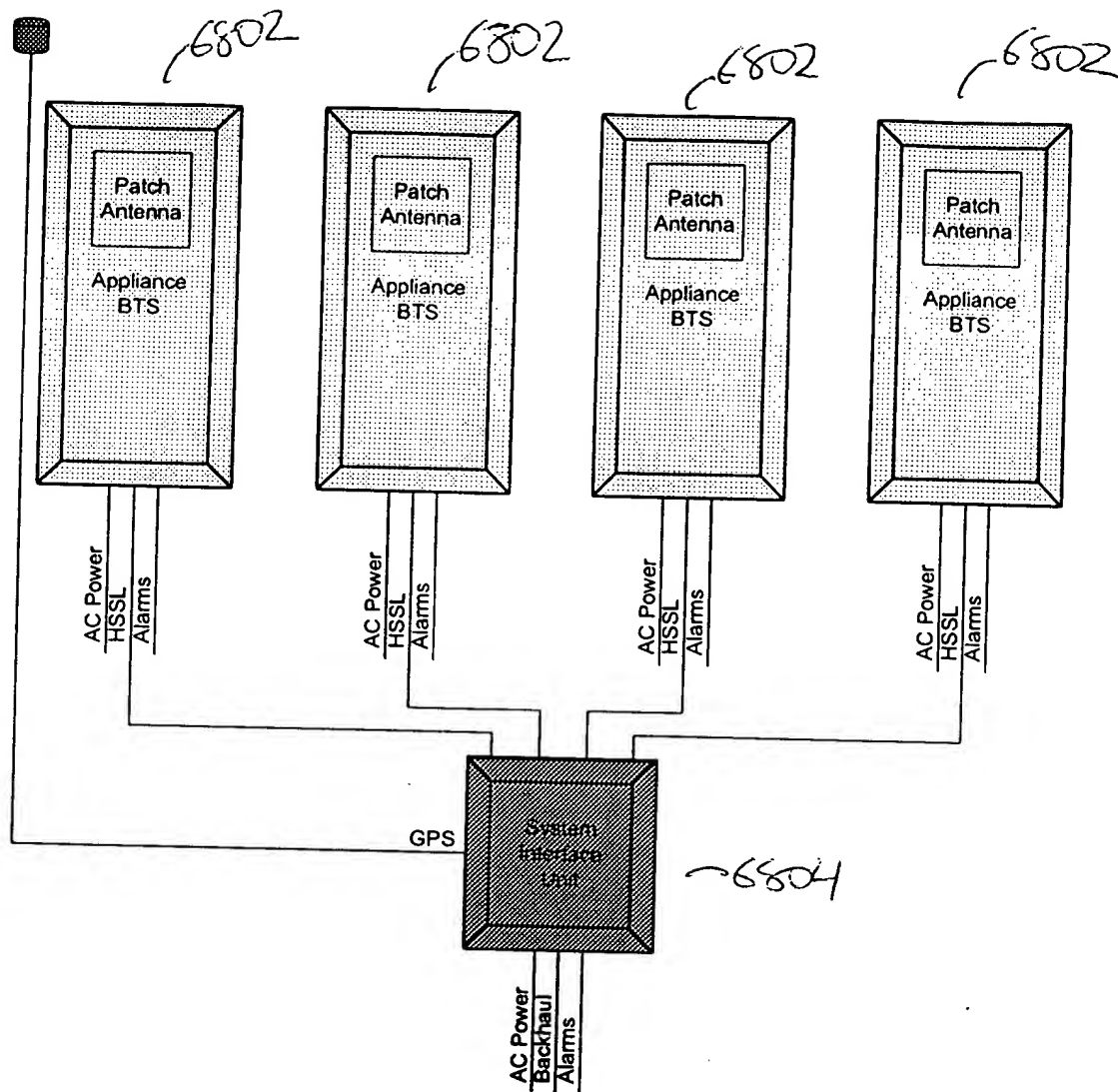


FIG. 68

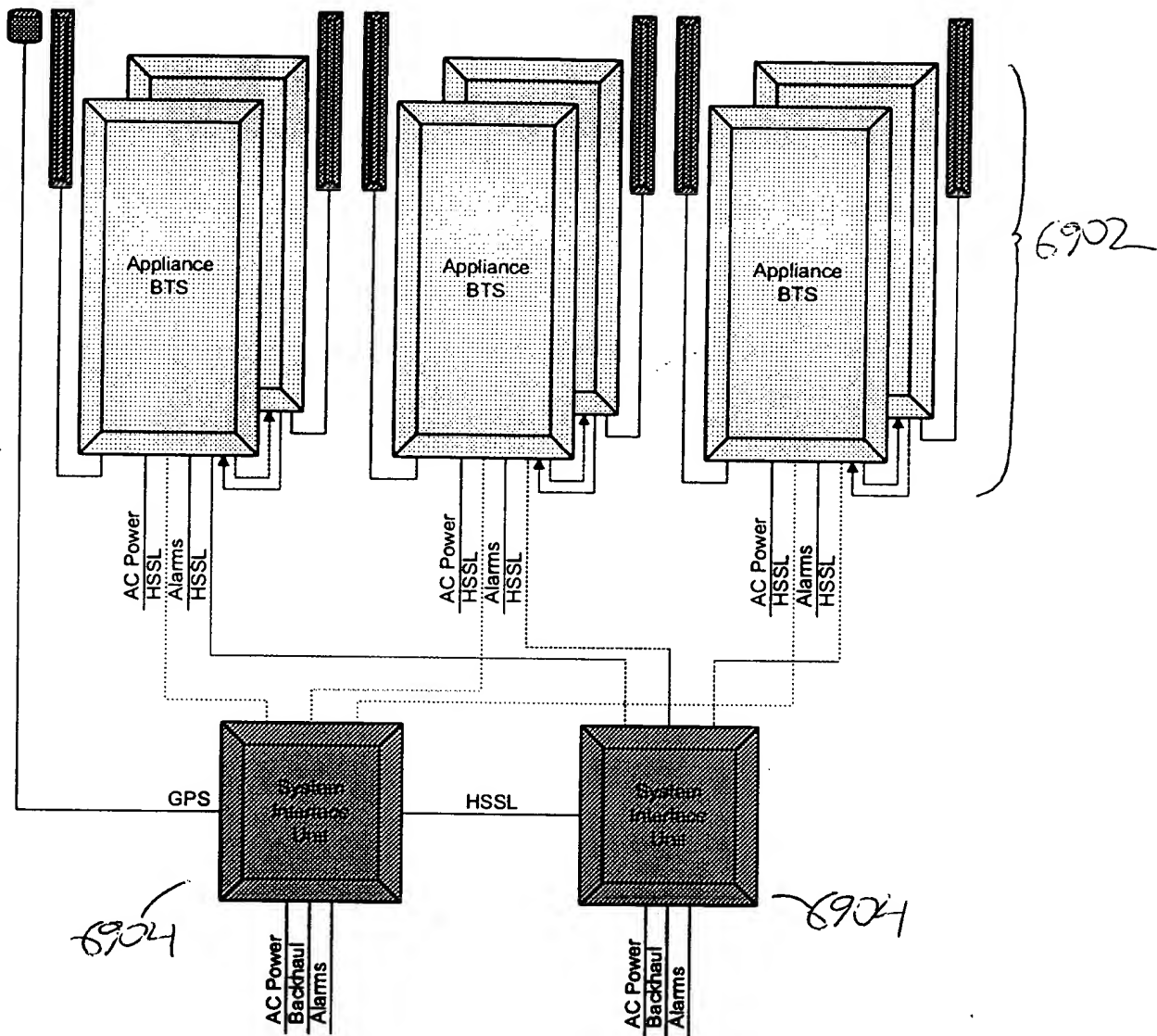


FIG. 69

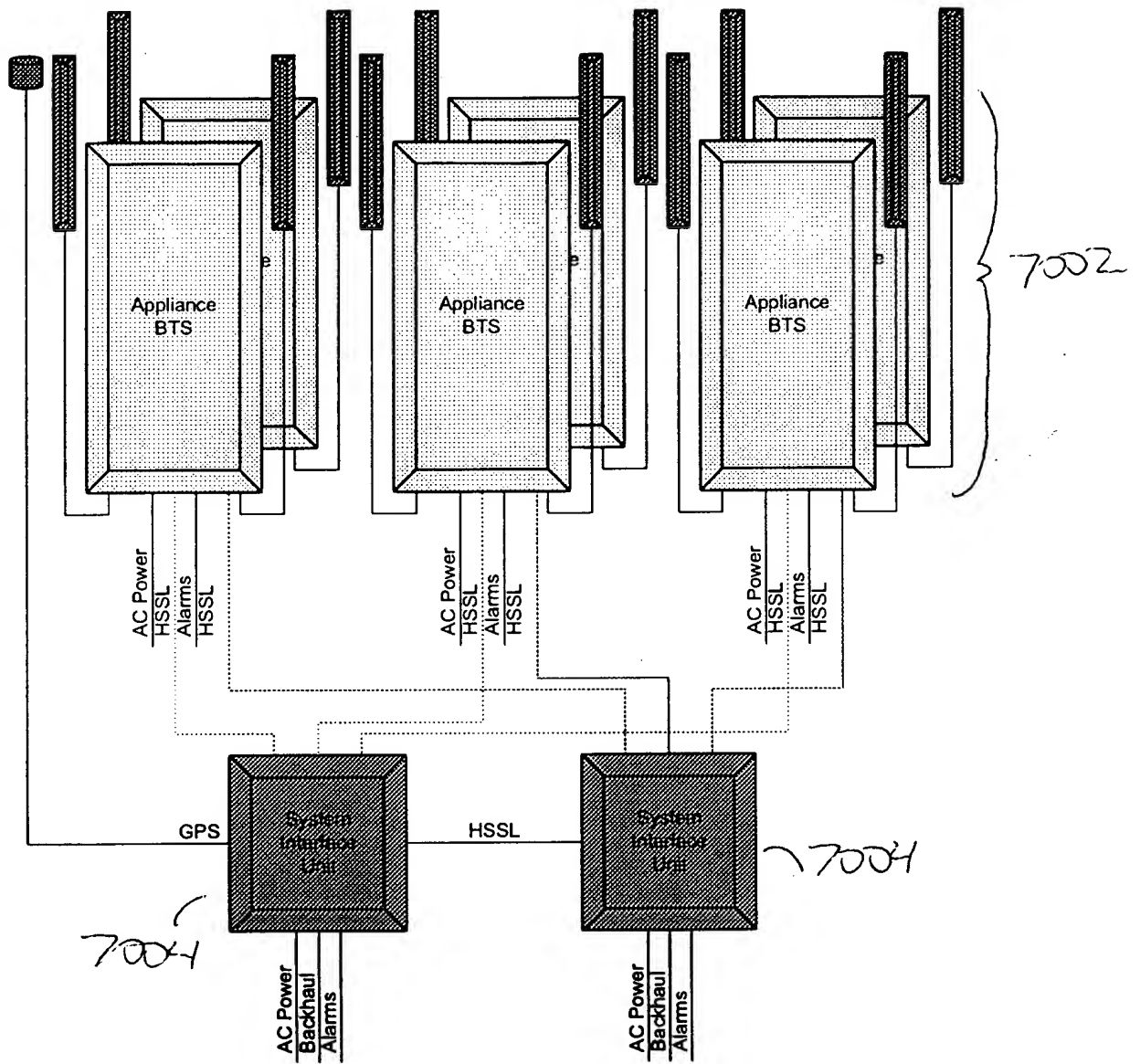


FIG. 70